

Clinical academics' views on teaching undergraduate medical students

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Abstract

The Medical School of the University of Liverpool is at a critical phase in its development. Through the 1990's and 2000's it improved from being at the bottom of the league tables, with graduates who were imperfectly prepared for their pre-registration house officer posts, to being at the top of the league tables with the best prepared graduates. In more recent years it has performed badly in the National Student Survey, and has, consequently fallen down towards the bottom of the league tables. The graduates are still well prepared, but the sense of cohesion and common endeavor within the medical school has been lost. This is manifest in several ways, but the trigger for this study was a difficulty in recruiting senior clinicians to teach our medical students. A series of semi-structured interviews was held with a purposive and convenience sample of fourteen senior clinicians. Nine of the participants were members of full time University staff with honorary National Health Service (NHS) contracts, and five were full time NHS clinicians with honorary University contracts. The gender balance was equivalent to that of the senior clinicians in our region (60M:40F). The approach taken in this study is a critical realist approach, whereby it is recognized that individual participants experience and interpret reality in their own particular ways. The factors that individuals consider to facilitate or frustrate their involvement in teaching undergraduate medical students are, at best, a proxy measure for the actual constraints and enablers. The themes extracted from the interviews were studied using a constructivist grounded theory method. The major enablers for being involved with teaching undergraduate medical students were the students themselves, and a desire to give them the best possible experience. The major constraints were a lack of clarity about expectations, a lack of recognition for those involved in teaching, and the difficulty of balancing competing imperatives. The two new elements uncovered in this study are the influence of colleagues (for good or ill) and the relative unimportance of "time" itself. A series of recommendations are made which involve leadership, communication, recognition, and, crucially, ensuring the agency of those who wish to be involved in educating undergraduate medical students. Awareness of these issues should strengthen the

medical school in its resolve to improve the student experience, and rebuild our community of practice.

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Introduction

The students who graduate from Liverpool University School of Medicine are among the best prepared in the country when they enter their foundation year jobs as junior doctors on the first Monday in August each year (Cave et al., 2007). Despite this, the School of Medicine is faring very badly in the National Student Survey (NSS: Ipsos Mori, 2011), and in 2014 was ranked 25/31 in the Complete University Guide League Tables (The Complete University Guide, 2014) and bottom in the Guardian League Tables (The Guardian, 2014), principally because of the low score in the NSS in the domains relating to feedback on examinations and enthusiasm of staff.

The curriculum was dramatically altered in 1996, in response to the publication of the General Medical Council's guidelines (General Medical Council, 1993), to create a student-centred programme based around early clinical contact, specific training in clinical and communication skills and Problem-Based Learning (Bligh, 1995; Taylor & Mifflin, 2008). The programme initially met with some success (Taylor, 2001; Taylor, 2004; Watmough, Garden, & Taylor, 2006a, 2006b; Watmough, O'Sullivan, & Taylor, 2010), but there remained a number of senior clinicians who felt that the basic science knowledge of our students was too low (Watmough, Taylor, & Garden, 2006). This has been a long held belief in every medical school (Flexner, 2002), but it has been reiterated by senior colleagues to the extent that the students now believe it, despite evidence to the contrary (Bowhay & Watmough, 2009).

There was a curriculum review in 2009 (Graham, 2009), but it has been clear for some time that the sense of cohesion within the medical school has been lost. Student complaints, particularly about the clinical years, have been increasing and it has been very difficult indeed to recruit sufficient clinicians to supervise student projects. It has been proving very difficult to reverse our fortunes. This study forms part of a concerted exercise to identify the issues that are creating, or reinforcing our difficulties, and find a way of restoring our community of practice (Wenger, 1998).

One of the challenges faced by every medical school is that a large proportion of those involved with teaching medical students are necessarily also providing a clinical service within the local health economy. As the clinical load increases and governance measures are imposed, the clinical workload assumes a greater importance. The training of undergraduate medical students is also moving (back) to a more apprenticeship model, which requires greater clinical supervision (General Medical Council, 2009). More accurately, what the GMC are calling for is an increase in situated learning (Lave & Wenger, 1991). The main feature of the type of situated learning that is required is “legitimate peripheral participation”. This means that all senior medical students are expected to work with patients under close supervision (rather than simply observe, or act as “assistants and dressers”). This, of course, has implications for the senior clinicians to whom the students are attached. Although there is a moral and legal requirement for Doctors to be involved in training junior colleagues (General Medical Council, 2013), there is no *a priori* reason why this should be focused on medical students, and many colleagues opt to concentrate their training input on colleagues who can make a significant contribution to meeting clinical demand.

A series of informal conversations with colleagues, when I was in my former role as Deputy Director of Medical Studies (2001-2012), led me to the conclusion that it was going to be necessary to make it easier for senior colleagues to be involved with teaching our undergraduate medical students. This project is the outcome of those earlier concerns, which have magnified with recent changes in the local health economy, and with a marked change in the way that the educational provision within the health service is funded (Higher Education England:NHS, 2012). The fee income from the students, and the (significantly greater) monies received from the Higher Education Funding Council (HEFCE) pay for a large part of the educational process through the national education budget. Local Educational Providers (hospital trusts and general practices) are compensated from the national health budget for the presumed time taken to train students through the Service Increment for Teaching (SIFT) which was previously disbursed by the Strategic Health Authority, and has been taken over by the Local Education and Training Boards. The extent to which any of

the money is actually seen to be used to help educate medical students is hotly contested.

In terms of practitioner research, the intention behind this study is to establish those things that encourage or make it easier for senior clinical colleagues to teach undergraduate medical students, and those things that make it harder or present a barrier. In the medium term, with a greater understanding of the reasons behind the choices that colleagues make, it should be possible to devise a system that aligns their personal and professional needs with those of the school and our students.

My initial intention had been to study only those colleagues who held substantive University contracts, and so could be termed “Clinical Academics”. After a small number of interviews it became clear that this would not supply a comprehensive understanding. There are two reasons. The first is that University clinical academics also have a research commitment, and so have to split their time three ways, between students, research and service delivery, each with their imperatives. The second reason is that the majority of clinical teaching is actually done by colleagues who have a substantive contract with the National Health Service (NHS), and an honorary University contract. Consequently I interviewed two groups of colleagues. The majority had substantive University contracts and honorary NHS contracts. The smaller sample had substantive NHS contracts and honorary University contracts. For the sake of progressing the discussion I shall refer to those with substantive University contracts as “clinical academics” and those with substantive NHS contracts as “clinical teachers”. I accept this is an imperfect distinction, as clinical academics are also clinical teachers.

The final element in this study is the theoretical underpinning I have adopted. For reasons that will be discussed shortly my feeling is that the reasoned action approach (Fishbein & Ajzen, 2010) is a fruitful avenue. We do not, however, know enough about the antecedent factors, the belief systems or the perceived control factors to be able to complete a coherent study. Because of this I have focussed on three elements of critical realist theory, as applied by Archer (Archer, 2012), namely

structure and agency and the interplay between them. These three elements form part of the final stages of the reasoned action approach.

Central to this study is my belief that it is not sufficient simply to describe the situation, we need to be able to explain and apply what we have discovered in order to re-form our medical community for our mutual benefit and to enhance the student experience.

There are three ways in which I believe this study adds to theory and practice:

- I have used a novel way to track and illustrate the point at which data becomes saturated in constructivist grounded theory (Table 4, p.64).
- I have identified two potential additions to Archer's original four types of reflexivity (Figure 24, p. 113). This represents a contribution to theory, but requires further research targeted to refuting or confirming their existence.
- I present a series of recommendations for ensuring the application of appropriate theoretical models to solve a real problem, and develop a community of practice appropriate to the current and future needs of medical education (pages 141 ff)

Literature review

In considering the factors that facilitate or impede senior clinicians being involved with educating medical students there are two issues to consider. Being a member of the medical profession is privileged, but implies a professional (Pellegrino, 2002) and legal (General Medical Council, 2013) obligation to provide a clinical service, to maintain one's skills and to train one's successors for their own future roles. I will address these issues through a consideration of the medical education literature and in the final discussion, the extent to which medicine, or a medical school, is regarded as a community of practice (Wenger, 1998). There are four areas to be covered in this literature review. The first concerns the intentions behind clinical teaching, the second what is already known about the potential answers to the research question, and the remaining two relate to the theoretical underpinning of the subsequent discussion.

The context of clinical teaching

Before I discuss the factors that impact upon all clinical teachers choosing to be involved in teaching undergraduate medical students, it is worthwhile briefly describing their roles and the landscape in which they are expected to educate their junior colleagues.

The participants in this study are all people whose educational activity takes place in and around their workplace. Although some of them do present lectures, in all cases their main activity is educating students in the clinical environment.

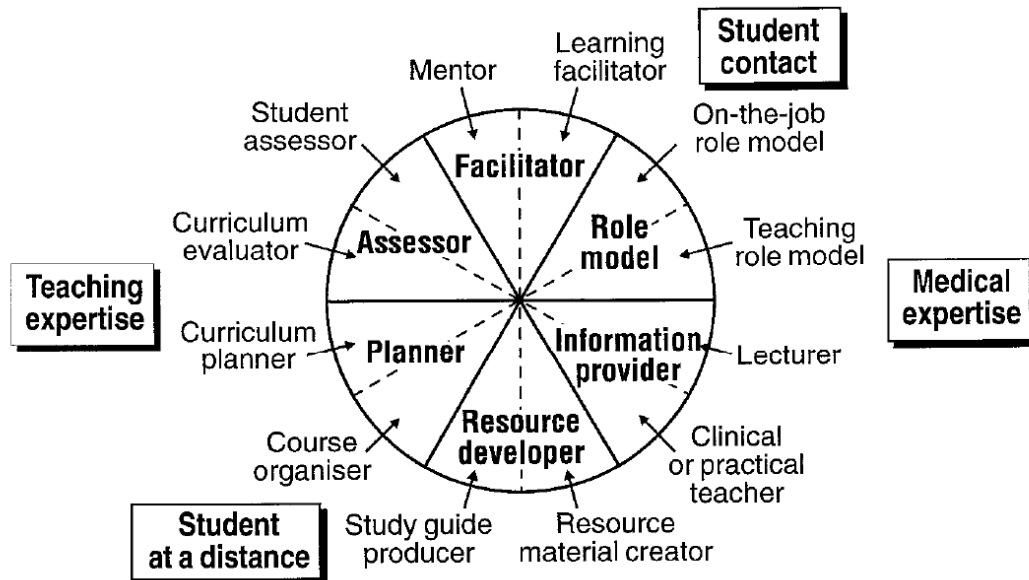


Figure 1 The twelve roles of a clinical teacher (from Harden and Crosby 2000, p.336)

For each of them, “teaching” includes helping students to understand what is happening, giving guidance and support and being a role model. It is rarely in the form of set-piece teaching. Harden and colleagues (Harden & Crosby, 2000) have long emphasised that there are at least twelve roles for the clinical teacher (see Figure 1), which were subsequently developed into a framework (Hesketh et al., 2001).

For all but two of the participants in this study (who were predominantly “planners”) the main activities were in the semi-circle of facilitator, role model and information provider and involved significant contact with students. It is clear from guidance produced by the General Medical Council, that it is a professional expectation that doctors should be involved in the training of future members of the profession (General Medical Council, 2013, p. 14). This expectation is recognised internationally, and has been incorporated into the CANMEDS (Figure 2) scheme for professional validation (Royal College of Physicians and Surgeons of Canada, 2005).

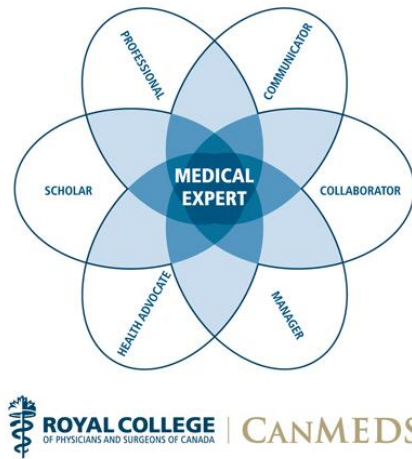


Figure 2 The CanMEDS framework for physician competency (Royal College of physicians and surgeons of Canada, 2005)

The General Medical Council have raised the stakes and status for being involved in teaching by adopting the professional standards of the UK Academy of Medical Educators as a framework for attainment and appraisal of the necessary desired standards (General Medical Council, 2012) covering activity in seven different educational domains:

- a. Ensuring safe and effective patient care through training
- b. Establishing and maintaining an environment for learning
- c. Teaching and facilitating learning
- d. Enhancing learning through assessment
- e. Supporting and monitoring educational progress
- f. Guiding personal and professional development
- g. Continuing professional development as an educator.

These ideals are important for the professional development of our senior colleagues, but are essential if the clinical environment is to provide a valuable learning experience for the doctors of the future.

There are three elements I would wish to consider in inducting an entrant into the medical profession.

The first relates to liminality. A prospective, or junior, student stands on the threshold of entering a profession, but does not, and cannot, really know what they

are letting themselves in for. Part of their difficulty will be overcoming the language employed by professionals, which is used, at least in part, to ensure precision, but which is often perceived as being a guarded mystery. The acquisition of, and growing familiarity, with the language of the new community are part of the enculturation into that community (Bernstein, 2000). Similarly, overcoming, and eventually mastering, the difficult concepts in a discipline is a crucial part of crossing the threshold from outsider to novice (Land, Cousin, Meyer, & Davies, 2005). I, and many others, would contend that these issues are best addressed in context; through situated learning (Lave & Wenger, 1991).

Situated learning is not the same as learning *in situ* (Lave & Wenger, 1991, p. 31). Simply going into a hospital ward or clinic and observing will be insufficient. The student needs to be engaged with what is being learnt. Situated learning refers rather more to becoming attuned to the thought processes that guide the decision making in a particular situation. It is “an integral part of the generative social practice in the lived-in world” (Lave & Wenger, 1991, p. 35). Lave and Wenger (1991) consider that this occurs best through legitimate peripheral participation. The beginner or novice is guided through the process of mastery by being accepted (legitimate) and being allowed to participate under close supervision through collaboration and interaction with those who understand what they are doing and engaging with the professional decisions as far as they are able. At first this will be very much on the periphery, but as they achieve and demonstrate mastery, they will be drawn in more closely.

The third element is that, as they are drawn in and understand the language, the issues, the complexities and the potential pitfalls, they become members of the community of practice (Wenger, 1998). The reason that this is mentioned in this study is that it is the model implied by the General Medical Council’s understanding of the role of Doctor as teacher and trainer, and consequently it defines the role that the profession (in the UK) assigns to the clinical teachers. This means that being a clinical teacher is about addressing each of the elements involved in forming a community of practice. They need to accept the involvement of medical students as

legitimate, and they need to induct them (explicitly or otherwise) into participating in the work of the profession, peripherally at first, but with increasing (supervised) autonomy. This is a heady responsibility, which is demanding of time, insight and energy, with potentially serious consequences if any of the elements are lacking (Dornan et al., 2009; Lewis et al., 2014; Lewis et al., 2009; Tully et al., 2009).

The final consideration moderates the responsibility of the individual clinical teacher, and that is that there is a growing understanding that communities of practice do not invariably run along hierarchical lines (although they did in the particular case studies considered by both Lave and Wenger). Communities of practice need to be recognised as social networks rather than social ladders (Jewson, 2007).

Individual role models, and contact with specific mentors, are essential (Elias, 2001), but they are not sufficient (Kadushin, 2012). This is particularly so in the current iteration of the hospital community, where, certainly in Liverpool, the old “firm-based” system has been replaced by one governed by shift patterns. Where once a student was attached to a single team for several weeks or months, they are now more likely to pass through a series of different teams (each with their own idiosyncrasies) even on the same attachment. This means that the role of the clinical teacher is much harder, and it requires conscientious effort to track and ensure the best learning (and supervisory) environment for the student.

Identifying the literature

The literature review of what is already known about the research question followed the scheme used by the Evidence for Policy and Practice Information and Coordinating Centre (Gough, Oliver, & Thomas, 2012). This was deliberately chosen as a robust and systematic approach.

Review question and search strategy

The research question, as already discussed, remains “What are the factors that frustrate or facilitate clinical academics engaging with teaching undergraduate medical students?” Rather than ask this question in isolation, since student

experience is relevant to my institution I included “student experience” in the search strategy. Two other issues framed the search. There is a tacit understanding that workload is a key factor. I also want to focus specifically on clinicians.

The first stage was a literature search, explicitly using the PUBMED search engine, which focuses the search on the literature pertaining to the clinical environment, rather than straightforward University teaching. I have adapted the PRISMA collaboration (Liberati et al., 2009) flow chart for systematic reviews overleaf.

Two papers came up in both primary searches (Kumar, Roberts, & Thistlethwaite, 2011; Peadon, Caldwell, & Oldmeadow, 2010), and so the search was extended to their linked papers. Hand searching the “Grey literature” led to the identification of a further 7 papers. Titles and abstracts were screened, duplicates removed, and the remaining papers input into NVivo® (with attached PDFs) for coding and thematic analysis.

Quality, relevance and coding

On the basis of the close reading of the papers, it was clear that a number of papers referred only to finances, recruitment into particular specialties or solely to students. Papers that related to other healthcare professions were included, but editorials with no data were excluded. The literature review is focussed on thirteen papers, each of which addressed the research question (Benbassat, Baomal, Chan, & Nirel, 2011; Busari, Scherpbier, Van Der Vleuten, & Essed, 2003; Dahlstrom et al., 2005; Davies, Hanna, & Cott, 2011; Gerrity et al., 1997; Hashim, Prinsloo, Leduc, Raasch, & Mirza, 2010; Hendry et al., 2005; Kumar et al., 2011; Lochner, Wieser, & Mischo-Kelling, 2012; Mathers, Parry, Lewis, & Greenfield, 2004; Peadon et al., 2010; Stark, 2003; Sturman, Régo, & Dick, 2011). The studies included in the review were, with one exception semi-structured interviews or focus group studies. The exception was a structured review (Gerrity et al., 1997) based on much earlier data.

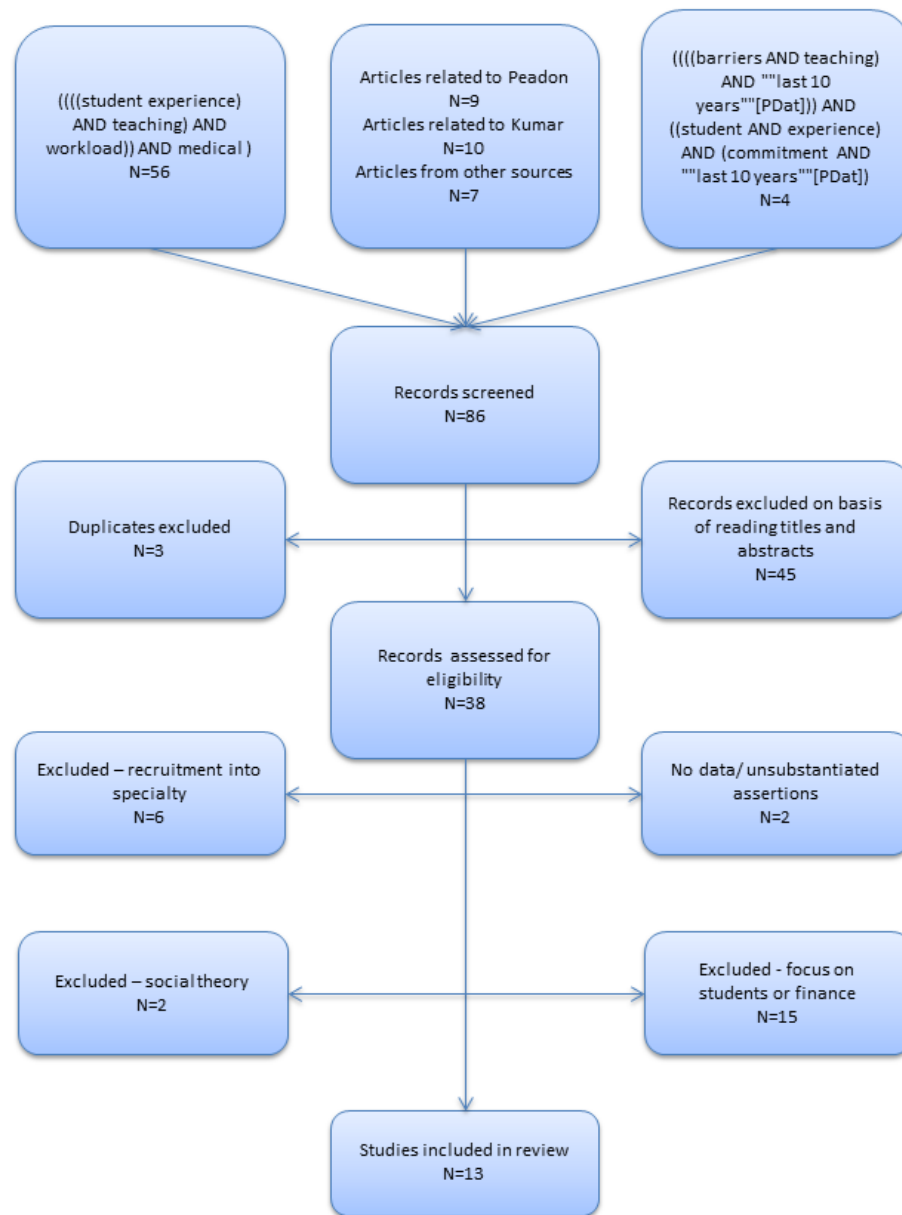


Figure 3 The literature search employed

Initial thematic coding of the papers (Charmaz, 2006) showed that there are were several recurring themes, which could be subdivided into positives, negatives, and things to aim for (see Table 1).

| | |
|-------------------------------|---|
| Positives | |
| discipline identity | (Lochner et al., 2012) |
| giving back | (Davies et al., 2011) |
| importance of teaching | (Stark, 2003) |
| intrinsic motivation | (Dahlstrom et al., 2005; Davies et al., 2011; Gerrity et al., 1997; Hendry et al., 2005; Kumar et al., 2011; Lochner et al., 2012; Mathers et al., 2004; Stark, 2003) |
| on your toes | (Davies et al., 2011; Gerrity et al., 1997; Mathers et al., 2004) |
| role model | (Bryden, Ginsburg, Kurabi, & Ahmed, 2010; Kumar et al., 2011) |
| teacher as learner | (Busari et al., 2003; Gerrity et al., 1997; Lochner et al., 2012) |
| youth | (Lochner et al., 2012) |
| Negatives | |
| juggling | (Gerrity et al., 1997; Hendry et al., 2005) |
| lack of enjoyment of teaching | (Dahlstrom et al., 2005) |
| lack of recognition or reward | (Busari et al., 2003; Gerrity et al., 1997; Hashim et al., 2010; Hendry et al., 2005; Kumar et al., 2011; Peadon et al., 2010; Sturman et al., 2011) |
| powerlessness | (Bryden et al., 2010; Davies et al., 2011) |
| stressors | (Davies et al., 2011; Sturman et al., 2011) |
| time and workload | (Dahlstrom et al., 2005; Mathers et al., 2004; Peadon et al., 2010; Sturman et al., 2011) |
| Aims | |
| clarity | (Busari et al., 2003; Gerrity et al., 1997; Hashim et al., 2010; Peadon et al., 2010; Stark, 2003) |
| educational training | (Busari et al., 2003; Gerrity et al., 1997; Hashim et al., 2010; Peadon et al., 2010; Sturman et al., 2011) |
| embed QA systems | (Stark, 2003) |
| horses for courses | (Gerrity et al., 1997) |
| involvement in curriculum | (Dahlstrom et al., 2005; Gerrity et al., 1997; Hendry et al., 2005; Peadon et al., 2010; Stark, 2003) |
| job plan | (Stark, 2003) |
| professional identity | (Kumar et al., 2011) |
| support | (Davies et al., 2011; Kumar et al., 2011; Stark, 2003) |

Table 1 Themes identified in the literature, showing the authors that cited them

It is necessary to preface the following analysis with the observation that the National Health Service, and, for that matter, higher education in the United Kingdom is in a state of continuous flux, so any data published more than a year ago certainly relates to a different context. The more recent studies listed above are either based on overseas contexts (Bryden et al., 2010; Davies et al., 2011; Hashim et al., 2010; Kumar et al., 2011; Sturman et al., 2011), and/or have a very small heterogeneous sample size (Lochner et al., 2012). Although their findings cannot be assumed to relate directly to the context of this study, they are a valuable indication of potential avenues to explore with the participants.

Elements that support, or encourage involvement in teaching medical students

Without question, the most prominent reason given for colleagues being involved with teaching students, whether in medicine (Dahlstrom et al., 2005), the health professions (Davies et al., 2011), or indeed at school or other undergraduate level (Gerrity et al., 1997) was intrinsic motivation. Intrinsic factors included the

satisfaction that one gains from undergraduate teaching (Hendry et al., 2005), sometimes expressed as a “love of teaching” (Davies et al., 2011), altruism (Dahlstrom et al., 2005), establishing rapport with students (Lochner et al., 2012) and the day-to-day variety that is brought by the presence of students in the clinical environment (Mathers et al., 2004). One of the intrinsic motivating factors that it was refreshing to see articulated was that teaching undergraduates “brings joy for many” (Gerrity et al., 1997, p. S92) and, even in the more conservative circles investigated by Patsy Stark, consultants admitted to enjoyment (Stark, 2003, p. 980).

The other significant factor, which encapsulates several others, is that through teaching one is continually challenged to understand one’s own subject better. It can be affirming when one receives feedback, or listens to students’ enthusiasm about one’s life’s work (Gerrity et al., 1997), and the constant challenge in answering what might at first sight be perceived as naïve questions, requires one to re-examine one’s own knowledge and understanding (Busari et al., 2003; Lochner et al., 2012; Mathers et al., 2004). It does indeed keep one “on one’s toes” (Davies et al., 2011). That has a darker side, for some, of being an uncomfortable place, detracting from old certainties (Davies et al., 2011).

In one of the more discursive semi-structured interview studies, two separate people referred to the importance of loving the subject material, actually wanting to get it right and make it fresh for students (Lochner et al., 2012). This was seen as important intrinsically, but also to make the subject lively enough for the students to want to consider a career in the participants’ disciplines. This is, in my mind, one of the elements of role modeling, which was recognised as an important, and positive, part of teaching medical students (Bryden et al., 2010; Kumar et al., 2011).

Although the study by Lochner and colleagues (Lochner et al., 2012) is flawed, particularly as it has a small sample size (8) drawn from widely differing disciplines (and, important in this context, only two of them were doctors), the investigators achieved an extraordinary rapport with their participants, which they used (Ezzy, 2010), wittingly or otherwise, to draw out astute and deep-seated understandings.

These related to the pleasure of being allowed back into the world of those younger than oneself, and the privilege of being able to re-vision the future in their eyes (Lochner et al., 2012).

A related concept, which links back to the importance of a professional (discipline, or in the UK “specialty”) identity and role modeling is the idea of “giving back”. By this respondents meant repaying those who had helped them in the past, by helping younger colleagues in turn (Davies et al., 2011).

For those reasons, and doubtless others, which I will explore in my own study, teaching is seen by many as being of equal, if not supreme, importance in the day to day business of competing imperatives (Stark, 2003).

Elements that frustrate, or discourage involvement in teaching medical students

The most frequently cited factor that mitigates against being involved, or more involved, with teaching undergraduate medical students is the lack of recognition either by omission (Busari et al., 2003), where it is, explicitly, not considered as an important part of the role, or commission (Gerrity et al., 1997; Hendry et al., 2005), whereby it is acknowledged, but not even tacitly rewarded. This leads to a feeling amongst some (Kumar et al., 2011) that they are marginalised in what they perceive as a research focussed culture. The paradox, where institutions say they are interested in teaching, and yet fail to reward or recognise those who do it, impacts upon the decisions that clinicians make (Peadon et al., 2010) to engage with teaching undergraduates, and ultimately affects staff retention (Sturman et al., 2011), particularly in those disciplines which were not traditionally a focus for medical teaching. It is clear from these earlier studies that there has been a long-held awareness that recruitment and (Davies et al., 2011) retention (Gerrity et al., 1997) depend on coherence between leadership expectations and reward and recognition.

The lack of recognition mentioned above impacts upon the decisions that people make when faced with a heavy workload and the competing imperatives of clinical

service delivery and educational responsibilities (Dahlstrom et al., 2005; Peadon et al., 2010). The additional work involved in preparing for teaching, administration, and just generally in coping with more people in the clinical environment (Mathers et al., 2004) feeds into the overall workload and discourages people from taking on more students. These issues are compounded when one considers those who are self-employed (General Practitioners in the UK and Australia, or private doctors: (Sturman et al., 2011)). For those that choose involvement there is the task of balancing clinical, educational and research endeavours (Hendry et al., 2005) in the face of the budgetary driver to increase clinical productivity and the career imperative to increase or maintain research profile (Gerrity et al., 1997).

Living with these tensions produces stress in some (Sturman et al., 2011), and others report stress in dealing with students, either because they do not enjoy teaching (Dahlstrom et al., 2005), or because they find the challenge overwhelming (Davies et al., 2011).

In two of the studies reviewed, the combination of the factors above, and an apparent institutional inflexibility, led to a feeling of powerlessness (Davies et al., 2011) which in turn was a barrier to becoming, or continuing to be, involved (Bryden et al., 2010).

There clearly still are senior clinical academics that are prepared to teach, simply because they feel that the benefits outweigh the barriers.

Despite clear articulation of the many problems facing teachers working in modern health care settings, many clinicians still derive satisfaction from, and maintain a strong commitment to, undergraduate teaching.

(Hendry et al., 2005, p. 1137)

Things to consider for future improvement

Although, as mentioned above, the context of all of the studies reviewed was different, physically, temporally or philosophically, there is a menu of potential solutions from which the contemporary University Medical School can choose the most productive for their context.

The improvement most frequently requested in the studies reviewed was improved training oriented towards the University's requirements (Busari et al., 2003; Sturman et al., 2011). This is partly pragmatic, to support and align effort with intended outcomes (Peadon et al., 2010), but also to reward a cohort of high achieving and dedicated colleagues by developing their skills and self-esteem (Gerrity et al., 1997; Hashim et al., 2010).

Partially aligned with the idea of providing education and training is the idea of re-visioning the support given to clinical teachers. Support is perceived as being different from place to place (Davies et al., 2011), which impacts the culture of the clinical/academic environment. It legitimises the activities of those who are involved in teaching (Kumar et al., 2011), it allows for a developing professional identity for a clinical academic (Kumar et al., 2011) and it increases the likelihood of people wanting to influence the curriculum and ultimately engage in teaching (Stark, 2003). In addition to the educational approach mentioned above, the evidence indicates that there is, or was at the time of the collection of the data, a strong desire amongst clinicians to be involved in the design of medical programmes (Dahlstrom et al., 2005; Gerrity et al., 1997). This is partly concerned with representation of one's discipline (Hendry et al., 2005), but more to do with being sure that what they are teaching is what is actually required (Gerrity et al., 1997; Peadon et al., 2010). Sharing programme development with clinical colleagues is also a way of indicating that the institution recognises the importance of the clinical-academic partnership (Gerrity et al., 1997). Again, as Stark highlights, people who are involved with the planning are more likely to participate (or encourage participation) in the process (Stark, 2003).

The clinical-academic partnership is crucial in the delivery of a contemporary undergraduate curriculum, and it relies on good communication (Gerrity et al., 1997), both about what one is supposed to be doing (Hashim et al., 2010), and about how well one is perceived to have done it (Peadon et al., 2010). A clarity of vision, and an understanding of exactly what is required, is seen as a mark of mutual respect

(Gerrity et al., 1997) and as a way of improving commitment and buy-in from clinicians (Busari et al., 2003).

The final element in encouraging an increased engagement between clinical academics and teaching medical students, is to write it into their job plans (Stark, 2003), as I will discuss later, this has a down-side, in that one loses a more flexible availability. There two main positive aspects (in addition to the obvious allocation of time) in that it allows management to identify those for whom teaching is a strength and more fulfilling activity (Gerrity et al., 1997) and it means that it is easier to build quality assurance and feedback into the education contracts (Stark, 2003).

The conceptual model based on the review of the literature above is shown in the following figure.

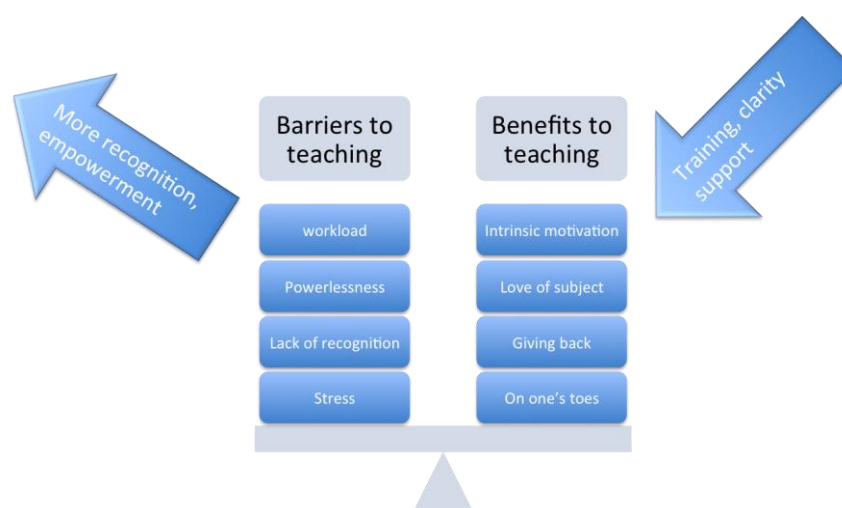


Figure 4 The conceptual model governing engagement with teaching

Recognising and empowering colleagues would help reduce the barriers to teaching (hence the arrow removing weight from the left of the scale), and training, greater clarity and support would increase the benefits to teaching, and the quality and the quantity of educational provision (hence the arrow adding weight to the right hand side of the scale). The literature review provides an understanding of what colleagues perceive as the barriers to, and benefits of teaching. However, the original research papers are descriptive, rather than theory-bound, and so do not allow one to be sure about the technical aspects that would stem from a particular theoretical

perspective. I wish to consider critical realism, and the original papers shed no light on the generative mechanisms (or underlying reality) behind the constraints or enablers, or the extent to which constraints or enablers map against barriers and benefits as they were perceived and interpreted by the participants.

The reasoned action approach

The literature review was completed on papers published some time ago, and in a variety of contexts that might, or might not, relate to the one I wish to address. This calls for a closer examination of the factors that sway the balance between clinicians engaging with, or not engaging with teaching medical students in my own specific context. This is a complex, multifactorial agenda, and we need to consider the theoretical underpinning and hermeneutic to be applied.

My study population is, intentionally, senior clinicians. This is principally because they are in a position to determine for themselves whether they become more, or less, involved with the education of undergraduate medical students. Training doctors on the medical register fulfils their professional and legal obligations, so the education of medical undergraduates is something that is, to a greater or lesser extent, a matter of choice (Fish & de Cossart, 2006). A robust approach which can be applied to disentangle motivation in such circumstances is the reasoned action approach (Fishbein & Ajzen, 2010).

The reasoned action approach was devised from the results of a series of experiments aimed at determining why people follow health promoting behaviour, like going to the gym, or stopping smoking. It was developed by the authors from their earlier “Theory of Planned Behavior” (Ajzen, 1991, 2002), on the basis of a series of carefully crafted questions, to which respondents answered using either Thurstone or Likert scales. A Thurstone scale (Thurstone, 1927) requires the respondent to choose a point on a continuum (say from “good” to “bad”), whereas a Likert scale (Likert, 1932) requires respondents to indicate their degree of agreement with each of a series of statements. Both scales assign a number to an opinion,

although the extent to which the number assigned can be considered to be a true numerical value has been debated (Jamieson, 2004).

Fishbein and Ajzen (2010) consider that behaviours are determined by intentions. The intentions themselves are moderated by the context and are the summation of behavioural, normative and control beliefs. To start to develop an understanding of the factors that facilitate or impede the intentions of senior clinicians to engage with undergraduate medical students, we need to assign each of the factors to a role within the model. However, some elements are effectively intractable.

This model is discussed here, as it will frame the larger study, of which this is a part. The present study will focus on the final stages of the reasoned action approach, which is where perceived behavioural control, intentions and the external environment interact.

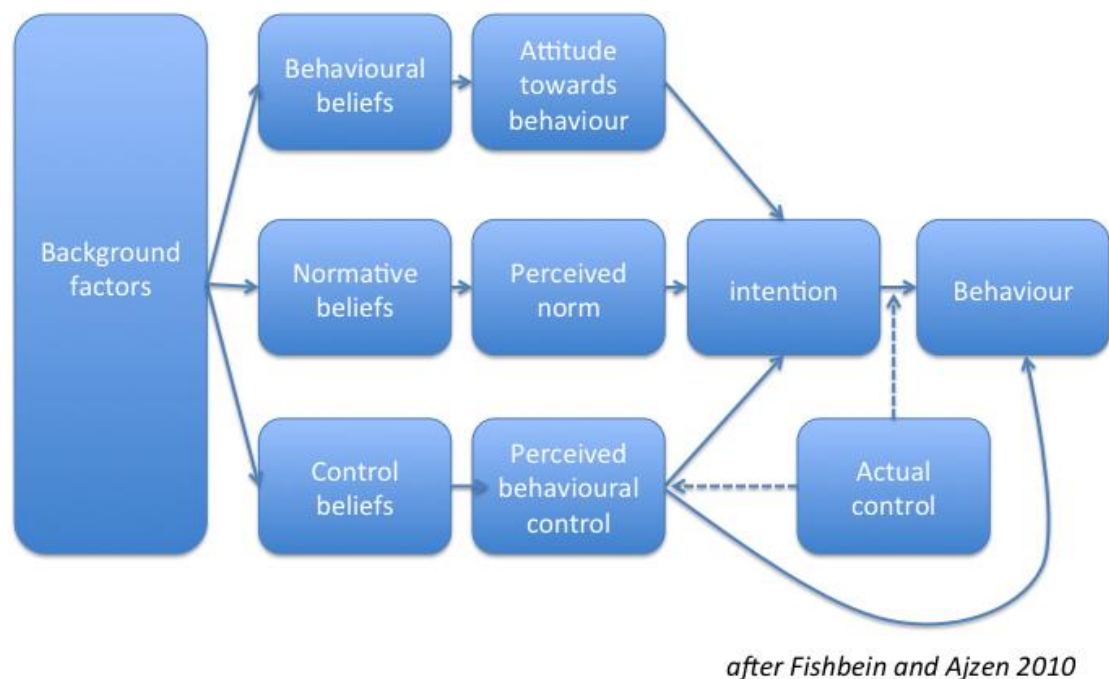


Figure 5 The reasoned action approach

Behaviour, intention and actual control

The reasoned action approach is used to determine why people decide on certain behaviours. There is, however, the issue of environmental factors. To take a depressingly current example, someone might fully intend to present a lecture to a group of students, and find that the building is locked because of a strike. Although

the final action was missing, by their preparation and travelling to the location they demonstrated intention, environmental factors intervened. In the terms used by the reasoned action approach, “actual control” prevented them from delivering on their intention. Actual control relates to the elements like skills and abilities and the difficulty of the task, as well as physical obstacles.

When considering actual control in the context of involvement in teaching medical undergraduates, most of the elements are in the purview of the employer/s. We can select candidates for posts who are gifted and enthusiastic in teaching. We can ensure that they are appropriately trained to teach in their context. We can ensure that their role is matched to their abilities, and, of course, we can try to ensure that there are no physical or temporal barriers to the completing their intentions. Each of these elements will be considered in the final chapters of this thesis, was mentioned in the earlier systematic literature review, and will, in different guises be mentioned by each of the participants in this study, since they are potentially facilitating or impeding factors that intervene between intentions and behaviour.

Behaviours are often difficult to measure. It would be theoretically possible for a teacher to sit in a seminar room and not guide or contribute to the student discussion. In the reasoned action approach, a behaviour is specific to a given action, target, time and context (Fishbein & Ajzen, 2010 chapter 1). So the behaviour described by saying one “will exercise twice within the current week for at least 40 minutes each time” is different from saying “I will go to the gym with Fred at 6pm on Tuesday and Thursday this week, and we will spend 20 minutes on the cross trainer before we go for a swim”. They both show intention, but one is much more specific about the action, the target, the time and the context.

In this study I will be focusing on intention rather than behaviour. There are two reasons for this, the first is that measuring the behaviour would potentially confound the study and make it harder to identify the factors that facilitated or impeded it. The second is that the way in which senior clinical colleagues are involved with education undergraduate medical students is deeply context dependent. A principal

in general practice would have a different understanding from a consultant surgeon of what it means to teach and the way in which teaching could be delivered. Each will have particular demanding contexts to deal with that might limit their behaviour – but their intentions could well be equivalent.

In the reasoned action approach intentions are regarded as the best predictor of behaviour. Intentions show what the participant would wish to do in the absence of confounding factors, and are themselves determined by the participant's attitude towards the behaviour and their perceptions of the norm and the control to which they are subject.

Attitudes, norms and control

The attitudes towards the behaviour, perceived norms and the perceptions of behavioural control each impact upon the intentions. The extent of their impact will vary between individuals, and is dependent upon the context. People who are in favour of being involved in the education of undergraduate medical students have a more positive attitude towards the behaviour, and might therefore be expected to be more likely to intend to teach medical students. Whether they do so or not might be determined by what they perceive as the norm within their department. If there is a strong ethos of teaching medical students then they are likely to follow their intention. If, in contrast, there is a strong ethos that teaching is less important than clinical service provision or research then they are more likely to comply with what they perceive as the norm in their current context.

This is where the story gets a little more complicated, since there are two types of norm. There is the injunctive norm ("Do as I say") and the descriptive norm ("Do as I do"). In a perfect world these two are congruent. In this study I am deliberately focusing on senior clinical colleagues, since they are arguably less likely to be swayed by inconsistencies between injunctive and descriptive norms, and are more likely to be setting those norms for their junior colleagues. The way in which each of us responds to inconsistencies between injunctive and descriptive norms is determined

by the respect in which we hold the person we are observing, the strength of our attitude towards a particular behaviour, and our underlying belief systems

Perceived behavioural control works on two levels, in that it can inform intentions, but can also directly affect behaviour. If we believe that someone we respect requires us, or would like us, to perform an action, it might strengthen our intention to perform a behaviour, or we might do it despite our personal wishes or intentions. Similarly, if our line manager requires us to do something, then in most cases we will do it, whatever our preference or intention. As before, however, the extent to which we are swayed by the perceived behavioural control will be a factor of our underlying beliefs, our disposition towards our manager, our attitudes towards (or against) the behaviour, and what we see as the norm. Bandura's (1977) theory of self-efficacy, which aims at identifying the extent to which people can exercise free-will against the odds is subsumed within the category of perceived behavioural control.

Within the triad of attitudes, norms and control we also see elements of the contemporaneous thinking of Bourdieu (Bourdieu, 1977) and Foucault (Foucault, 1982). *Habitus*, which is Bourdieu's ability of an individual to read the field of play overlaps with the concepts of self-efficacy and also in the elements of the perceived norm ("Do I understand "the game"?"). *Social Capital* is the confidence with which someone feels able to face and oppose, or support, the perceived norms (both injunctive and descriptive) and to ensure that the game flows according to their own wishes. Parenthetically this will direct us to our later consideration of critical realism (Archer, Bhaskar, Collier, Lawson, & Norrie, 1998) and the extent to which we are able to employ the reflexive imperative to manipulate the situations in which we find ourselves (Archer, 2012). Although it is expressed in terms of anti-authority struggles (Foucault, 1982, pp. 780-781) Foucault's understanding of the importance on power in relationships is also related to perceived behavioural control and the weighting that one places on injunctive versus descriptive norms.

Just as intentions are shaped by attitudes, perceived norms and behavioural control, they, in turn are determined by an individual's beliefs.

Behavioural beliefs, norm beliefs and control beliefs

When considering beliefs, the first thing to consider is those which come most readily to mind – salient beliefs (Fishbein & Ajzen, 2010 p.100). Cognitive Load Theory suggests that in normal life, we function on the basis of holding a very few ideas in our heads at one time (Young, van Merriënboer, Durning, & Ten Cate, 2014). The maximum number lies between five and nine.

Salient beliefs are those that are mentioned first and are the beliefs most likely to be acted upon when rapidly deciding between alternate behaviours. Although salient beliefs are mentioned first, other beliefs may be uncovered and articulated through discussion. This has two consequences for the current study, since the first factors reported by the respondents are most likely to be linked to their salient beliefs – so the order with which certain ideas are put forward is important. The second implication is that a study using focus groups would not be the best way to identify salient beliefs – since through discussion less firmly held beliefs might become articulated and thereby assume a greater importance. In the reasoned action approach, Fishbein and Ajzen recognize two components to a belief. A behavioural belief – one that determines the attitude to a behaviour – is the product of the strength of a belief, and the evaluation ascribed to it.

$$A \propto \sum b_i e_i$$

Where A is the attitude towards the behaviour, b is the strength of belief about an attribute i , and e is the evaluation of the attribute. A voter might, for instance recognize that a politician is a Liberal with strongly held beliefs, and ascribe +3 to the liberal tendency to that candidate. The voter might himself or herself be strongly Conservative, and would therefore assign -3 to the attribute “Liberal”. The product of their assessment would be -9, or strongly negative. In reality, say Fishbein and Ajzen, the behavioural belief about (in this case) a given candidate will be the summation of what they know about the candidate. They are unlikely, however to be able, or prepared to hold a view concerning more than about seven of the candidate’s attributes.

Normative beliefs are those that describe an individual's underlying view about the social desirability of a behaviour. Fishbein and Ajzen describe them as the product of the strength of a belief and the participant's motivation to comply with it.

$$N \propto \sum n_i m_i$$

Where N is the normative referent, n is the strength of belief in referent i and m is the motivation to comply with the referent i .

An example related to this study should help clarify. It would be possible to ask a participant to answer a series of pairs of Likert-style questions like these below:

My *trust chief executive* thinks that I
should not.... | | | | | should
teach undergraduate medical students
I am
not motivated.... | | | | | motivated
to comply with their wishes

One would draw up a table, showing a series of normative referents and the products of the strengths and motivations for each of the items, the sum of the products would give the participants understanding of the normative. In this case the referent would be whether it was socially acceptable/desirable to teach medical students. The views of other referents (for example by replacing *trust chief executive* in the questions by some other person) would complete the table – so one might ask questions about the participants views with respect to their line manager (as above), other colleagues, ones' parents, ones' students, ones' best friend, and so on. Such scales are exceptionally difficult to construct, since, for instance, a question like the following is related to behavioural control, rather than norms.

If I teach undergraduate medical students my *trust chief executive* will be
not pleased.... | | | | | pleased

Salient control beliefs are arguably the most influential set of beliefs addressed in this study. They relate to perceived behavioural control, and particularly to the concepts of self-efficacy (Bandura, 1977) and expectancy (Feather, 1988). As for the other beliefs, in the reasoned action approach Fishbein and Ajzen consider that the perceived behavioural control (*PBC*) is the sum of the products of the strength of a belief *c* and the power that the belief has to influence a situation *p*

$$PBC \propto \sum c_i p_i$$

Again, a question related to this study might help elucidate. If we were to assume that time was a significant impeding factor for senior clinical colleagues becoming involved with teaching medical students, we might ask:

How likely is it that I will have the free time to teach undergraduate medical students in the next semester?

Extremely unlikely.... | | | | | | Extremely likely

Having more free time next semester would facilitate me teaching undergraduate medical students.

agree | | | | | disagree

One approach to this study would have been to use the reasoned action approach directly, but in my opinion we do not know enough about the underlying attitudes and beliefs to be able to construct a sufficiently rigorous question set. However, we are in a position to examine the factors that underlie elements of the reasoned action approach, in particular the attitudes, perceived norms and perceived behavioural control and especially the way they intervene between intention and behaviour. This leads us into the dimension of the way in which each of us sees the world.

Critical realism

What is critical realism?

The approach adopted in this study leads from my perspective of critical realism.

“Realism”, because I consider that, ontologically, some things exist, are “real”, irrespective of whether they can be observed. Things that are tangible are demonstrably real, but ontological realism relates also to intangible things like meaning, thoughts, beliefs and culture (Maxwell, 2012, p. 27).

“Critical” because I agree with the concepts of epistemological constructivism and relativism. That is, although there is only one reality it is perceived and understood differently by each individual observer (Maxwell, 2012, p. 9).

Critical realism, in these terms was developed principally by Roy Bhaskar (Archer et al., 1998), but has been significantly developed philosophically by Archer (see below) and methodologically by Scott (2010) and Maxwell (2012).

Methodological implications of critical realism

To my mind, there are two strong elements to Scott’s contribution.

Most importantly Scott recognises that, from a methodological point of view, we need to recognise that, just as participants in a study each have their own perspectives on reality, so do the investigators. The investigator’s choice of method, and even the area they choose to study, are determined by their experience, knowledge and personal foibles (Charmaz, 2006; Scott, 2010 chapter 9).

The other significant issue raised by Scott (Scott, 2010 chapter 7), which underlines Archer’s work (2000), in particular in her discourse with (or now, more accurately, about) Bourdieu (1977), is the recognition that full explanations of behaviours and events involve the participant’s agency but crucially also the structures in which they

operate. Agency and structures both have “causal powers”. This will be discussed in the section below relating to Archer’s work, but is of significance when considering the results, discussion and conclusions of this study.

Maxwell’s book (Maxwell, 2012) is an important and helpful methodological guide. In qualitative studies he stresses the importance of being rigorous in distinguishing between categories (the fundamental taxonomy into which one subdivides one’s data, (Glaser & Strauss, 1967)) and the connections between them (axial coding in the Glaser and Strauss model). This is important, philosophically, but in this study I have followed a more iterative and flexible approach espoused by Charmaz (Charmaz, 2006), where the concepts identified as categories in the initial coding can morph into connections in subsequent iterations, and vice versa. Maxwell does, however bring us back to a key point needed for our subsequent discussion, which is that although beliefs, meaning and culture are real – they are not necessarily shared. Each individual will have their own, personal and individual conceptual meaningful structures (Maxwell, 2012, p. 28).

Figured worlds

There are two other areas that need to be addressed before I concentrate on Margaret Archer’s contribution. As mentioned above, from a critical realist position one recognises that everyone has his or her own individual perspective. This is coloured by the culture in which they live, and crucially by the way they see their own lives – the narrative that they use to make sense of what is happening to them. This is the participant’s “figured world” (Holland, Lachiotte, Skinner, & Cain, 1998, p. 125). Holland’s ethnographic studies demonstrate that someone’s figured world can lead them to behave in what may seem like extraordinary ways to those who do not understand their standpoint. Their behaviour might be culturally determined, as Holland suggests, or it might be the product of a misunderstanding of the story they are telling, or believing, about themselves (Eakin, 1999). The key point from this part of the argument is that the story is not mediated by society, but by the individual’s own personal understanding of society.

Pierre Bourdieu

This is the point at which we need to touch briefly upon the work of Pierre Bourdieu (Bourdieu, 1977). To oversimplify things somewhat, Bourdieu argues strongly for the importance of “society”. The degree of autonomy he allows an individual within that society is rather less than would be allowed by a contemporary critical realist. We should recognise, immediately, that the particular culture that Bourdieu studied (principally the Kabylia, an agrarian community in Algeria) was, at the time of the research (1960’s), far removed from the post-modernist or arguably late modernist society of the current developed world.

According to Bourdieu there are three elements that predict the outcome in any situation: field, habitus and capital.

Field, more accurately understood as field of play, is the environment that one finds oneself living within. The participant can read the field of play to a greater or lesser extent. Think of the difference between a schoolboy in the playground, and the captain of a national football team reading the game in which they are involved. One will be reacting to things as they unfold, the other will be devising strategies to account for several alternative possible events, while they are still unfolding.

Habitus is the preferred action for the participant. In formal terms habitus is the intermediary between structures and outcomes (Bourdieu, 1977 chapter 2) it is, however a visceral action. To emphasise the centrality of this idea, think of a fish – its habitus is that it extracts oxygen from water through its gills. The structure is the oxygen and the outcome is oxygenating the blood – it is not something the fish (presumably) thinks about, until the water is removed. This is only partly helpful, since there is no element of choice for the fish, but again in Bourdieu’s eyes, the behaviour of those he was observing only varied under circumstances when they felt they had sufficient power or influence to depart from the norm.

Capital is the worth that a participant feels that they have, in any given domain, in the eyes of other members of their society. It comes closest to the critical realist’s

understanding of “agency” (a word not used by Bourdieu in “Outline of a theory of practice” (Bourdieu, 1977)). Somebody who feels that they are perceived by their society as having a high social capital is more likely to be able to follow their own inclinations. In other, more recent, words they can exercise their agency.

There are two ways in which this view contrasts with the critical realist approach. In common with Bourdieu, the critical realist recognises that structures have causal powers (Archer, 2000; Scott, 2010 chapter 7). They differ in that the critical realist believes that individuals have agency with causal powers, rather than being restricted to the powers granted them by society. To preview the debate that follows, it is the interaction of individual agents (as opposed to the community) with the structural and cultural worlds that leads to change (Archer, 2012, p. 33).

Margaret Archer

In the 1990s, in Coventry, Margaret Archer started work on a series of projects aimed at determining the factors that change people’s lives as they grow through adolescence into adulthood. A series of publications resulted from this project that has allowed the development of a sophisticated and fascinating analysis of a group of people from a difficult and sometimes deprived background. It has also allowed the observer to see how Archer’s thoughts and understanding of the links between structure and agency have developed over nearly 20 years.

Cultural and socio-cultural systems

Archer laid out the elements of her style of qualitative analysis early in her career, conveniently summarised in two chapters in an edited volume of “*Essential Readings*” (Archer et al., 1998). The key to understanding events is to keep cultural systems and socio-cultural systems analytically distinct (Archer et al., 1998, p. 523). Cultural systems relate to other *ideas* (which may be held by the participant and/or those around her), socio-cultural systems relate to other *people* (although the participant may indeed be aligned with a particular socio-cultural system). The

crucial element is that the context matters when one is trying to determine causal relationships (Table 2).

| <i>Cultural level</i> | <i>Context on which dependent</i> | <i>Relations between them</i> |
|-----------------------|-----------------------------------|-------------------------------|
| Cultural system | Other ideas | Logical |
| Socio-cultural | Other people | Causal |

Table 2 Separation between cultural and socio-cultural systems After Archer (1998, p530)

The second key point is that social systems are open (Archer et al., 1998, p. 190). Ontologically there is no point outside a society that one can stand as a disinterested and isolated observer. So the observer can be influenced by the society they observe and, equally, the very act of asking a participant to reflect on something has the potential to change the way in which that person thinks. It becomes impossible not to influence the system, so the best that the investigator can do is to try and recognise (and minimise or measure) their impact on the system.

The final element laid down in *Essential Readings* (Archer et al., 1998, p. 378) is that morphostasis (the tendency for outcomes to follow a preordained course – restrained by society) becomes morphogenesis (a tendency for outcomes to change and develop) through the way that people interpret, devise and develop the structures in which they labour (structural elaboration). I shall describe this more fully below.

Late modernity

The scene for Archer's thesis is set by "*Being Human*" (Archer, 2000) in which she argues that we are not in a post-modern age, unconstrained by the ties that would otherwise bind us to the past. There is an overarching narrative that links us to the past and to tradition, but we have the intellectual freedom to mould the future – consequently we are in a period of late modernity. We are not simply social automata, we have individual agency – returning to our roots in the Enlightenment.

“Modernity’s man was much more like the Clint Eastwood of the eighteenth century, the lone stranger who walked tall through the townships of the western world: the man from nowhere who arrived on the scene ready-made, imposed the order which he tacitly deemed justified, and strode off into the sunset unchanged by his encounter” (Archer, 2000, p. 51)

In late modernity, we are probably more cognisant of the factors that shape us, and the need to argue our case.

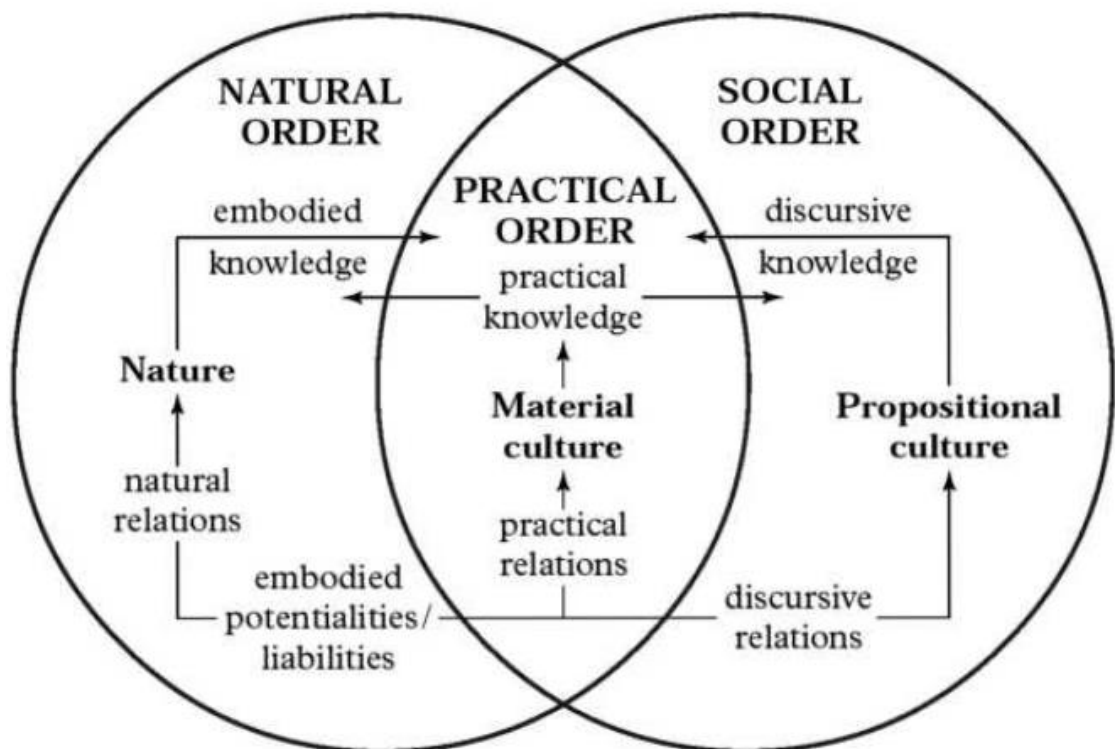


Figure 6 Archer's (2000, p.162) three orders of reality and the knowledge they embody

Archer posits that the natural and social orders are independent. Our practical order, our interpretation of the world around us, the understandings that we construct and the compromises we make are determined by embodied knowledge (the evidence of our senses in the abstract, free of context) placed in the context of what we have already learnt and experienced. An example may serve to clarify this. Under the “Natural order” we might place physical well-being, under “Practical order” we might place performative achievement, and under “social order” we might place self-worth (Archer, 2000, p. 228). So, to improve our physical well-being (natural order) we might exercise more in order to lose weight (practical order) and thereby increase our own personal opinion of our strength of character or tenacity (social order). A

perturbation to any one of those orders will derail the process (this topic is, in fact, the area covered in considerable depth by the reasoned action approach (Fishbein & Ajzen, 2010)). We do not assimilate and process the natural, practical and social orders on our own. We are guided in our development by other external forces. But, if we can manage them, our way of living (*modus vivendi*) is determined by the weighting we give to each of the different orders, and the compromises we reach between them (Archer, 2000, p. 221).

Development of Agency

In addition to navigating the three commentaries above at any one point in time, we are also faced with the process of personal life-long development, which involves a process of expanding our horizons and experiences.

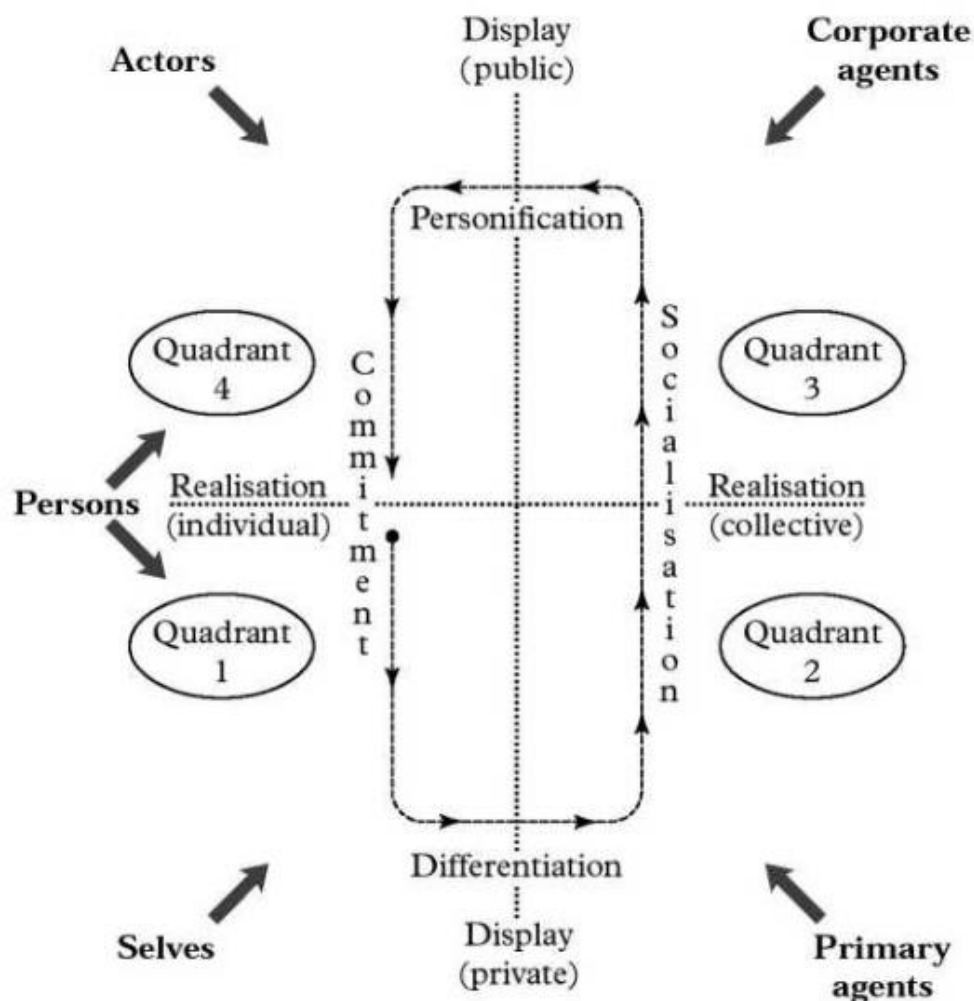


Figure 7 Archer's (2000, p.260) view of the realism account of human development

In Archer's model we start in quadrant 1 as individuals, starting to recognise our "selves" as distinct entities. As we recognise our identities we begin to realise that we are amongst others, from whom we differ. At this stage we move into quadrant 2, feel the impact of society upon us, and come to the realisation that we are in fact "primary agents" with the ability to express ourselves and make a difference. As we start to flex our identities as primary agents we realise that, working with others, we are more likely to achieve some of our objectives – this process of socialisation is marked by our becoming social agents (quadrant 3). At this stage we may feel that we have a public personal identity and role, and start to recognise our potential as social actors (quadrant 4).

My personal view is that the cycle presented by Archer is, in practice, a spiral that we ascend, passing through each of the quadrants but with increasing practical knowledge and experience, and potentially more sophisticated understanding. The earliest experience of the cycle is from infancy through to late childhood. Shifting through to the next rotation of the spiral occurs at adolescence through to early adulthood. In the cohort of people that are the subject of this study that corresponds to their entry into medical school. I believe that one of the roles of medical school is to guide students through the next revolution of the spiral. In this I see a parallel with the work of Perry (Perry, 1999), and later Belenky (Belenky, Clinchy, Goldberger, & Tarule, 1997) on the development of epistemology throughout college years. The next ascent of the spiral comes in developing one's career, and, as I hope will become clear, most of the participants in this study were in quadrants three and four, in transition between recognising themselves as corporate agents, and realising themselves as actors. There is a difference between becoming an actor and agency (Archer, 2000, p. 261) since everyone possesses agency, but not all find themselves in a position where it can be exercised.

Morphostasis and morphogenesis

At this point in her discourse, Archer introduces the scenarios of morphostasis and morphogenesis.

A morphostatic cycle is one where the imposed structure represses change in the culture, and the cultural conditioning and sociocultural interaction reinforces the maintenance of the culture – which in turn reinforces the structural domain. This was, and is, the case in pre-modern scenarios, where a ruling elite of corporate agents ensured their continued power over the majority (primary agents), who were not allowed to progress from quadrant 2 into quadrant 3 (let alone into quadrant 4) (Archer, 2000, p. 271).

In contrast, a morphogenesis cycle allows for primary agents to break free and influence the world around them. Socio-cultural interaction produces cultural elaboration (rather than cultural maintenance in morphostasis), cultural elaboration then allows, over time (Scott, 2010 chapter 7), structural elaboration and change becomes possible (Archer, 2000, p. 277).

The key question at this point is what is it that triggers the interaction between personal agency and social structure? This is the subject of the first book in the trilogy in which Archer develops her ideas about reflexivity mediating structural change (Archer, 2003).

The link between structure and agency is the internal conversation which provides the perspective and motivation to act (Archer, 2003, p. 131). At any time in life we are in conversation with our self (Archer, 2003, p. 114). The sole partner of the conversation is “I”, the person that I am now, shaped and formed by the things that happened to my past self “Me”, and debating what “You” will do in the future. “I” will, of course, change in the face of new experiences as my life elaborates in accordance with my actions (or lack of them). At any time though there will be a past “Me”, a present, dialogical and acting, “I” and an elaborated “You”.

Archer characterises this in two ways:

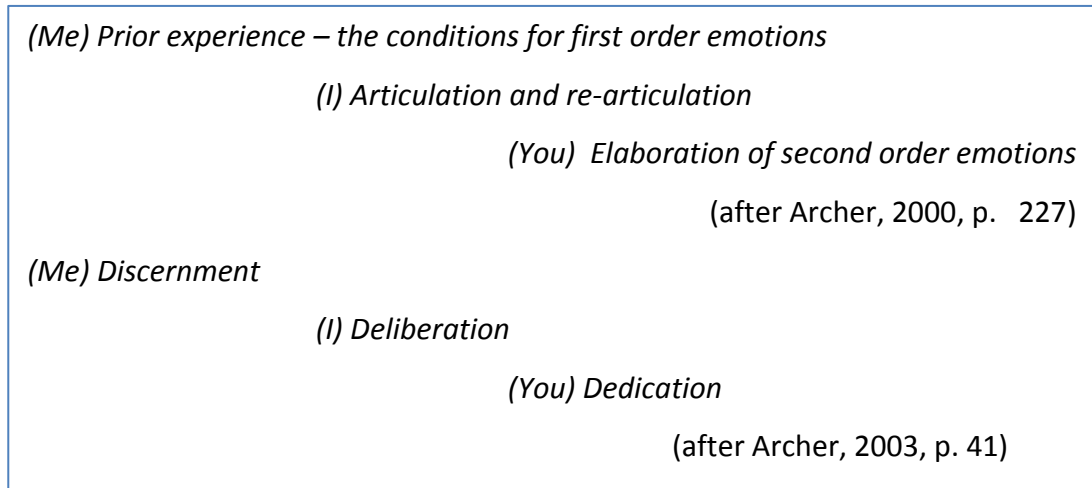


Figure 8 Archer's descriptions of the internal conversation

The way in which the internal conversation can produce reflexivity is discussed in *"Making our way through the world"* (Archer, 2007).

Reflexivity

The internal conversation, as has been stated above, mediates between structure and agency. But, as also noted above, not everyone is able to exercise their agency, and whether they do, and how they do, is a product of the type of reflexivity they adopt. In Archer's original model there are four types of reflexivity, three lead to action, and one does not (Archer, 2007, p. 93).

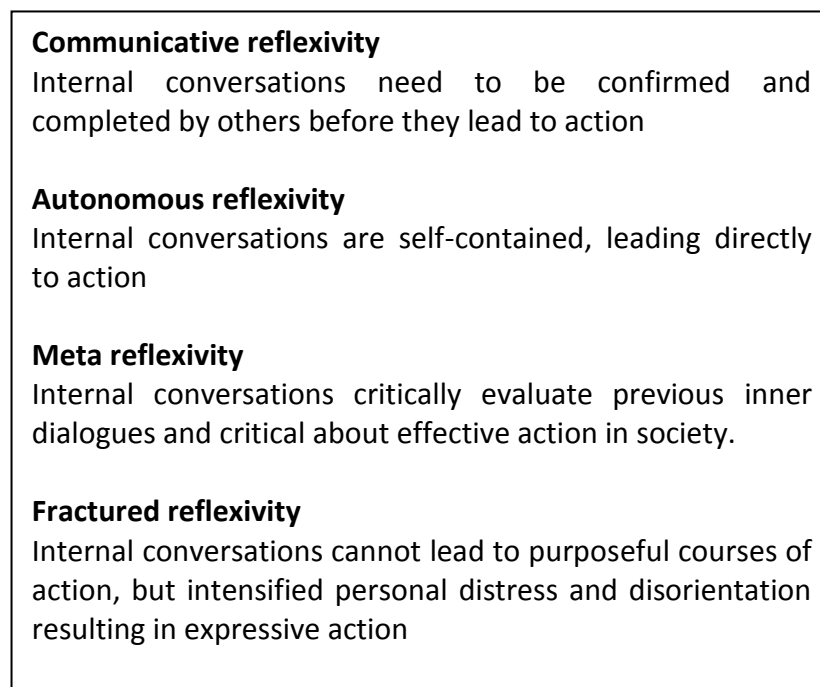


Figure 9 Four types of agency and their consequences (Archer 2012, p.13)

Those who are subject to fractured reflexivity, usually because of powerlessness, despair or confusion, are unable to make change – and their actions are, at best, tangential to the solution to any given problem. Communicative reflexivity leads to people who are happy to work alongside others, but who fundamentally do what the group suggests. Those who seize the initiative and make things happen show autonomous reflexivity, but meta-reflexivity is most likely to produce a coherent outcome – because of its reliance on critically evaluating previous dialogues.

The participants in my study were almost all meta-reflexive, probably because they were all in quadrant 4 of Figure 7. They were confident in their standing within the academic community, and therefore felt able to assert themselves as actors, and bring about effective action. In other terms, they all had, at the time of the interviews, high social capital, and understood the field of play. The difference between the Archer view of meta-reflexivity and the Bourdieu equivalent of agency is that Bourdieu regards the power to act as being granted by society, whereas Archer regards it as something seized. In this study, a smaller number of participants were passive in terms of reflexivity, or were prepared to let others act as change agents.

The meta-reflexive is able to complete the inner conversation in such a way as to change their practices (*modus vivendi*), and the practices of others around them, through the morphogenetic cycle (Figure 10).



Figure 10 Internal conversation and pursuit of the good life (after Archer, 2007, p.89)

To complete Archer's discourse on reflexivity as the expression of the internal conversation, and hence agency, we turn to the final book in Archer's trilogy (Archer, 2012).

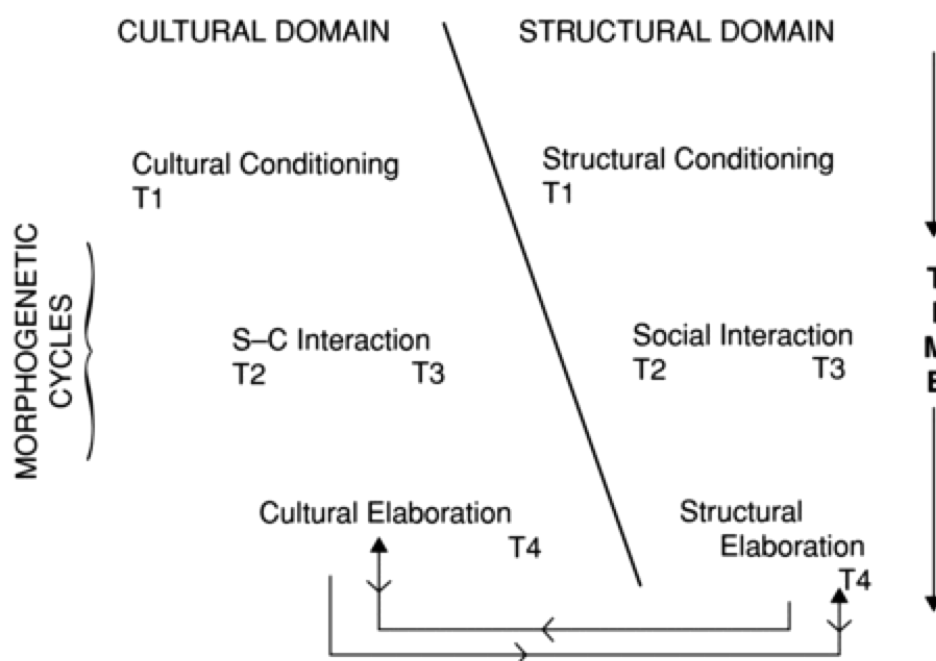


Figure 11 Morphogenic cycles (from Archer (2012, p.33))

Archer argues that reflexivity could only develop in late modernity, as society moved away from traditionalism (Archer, 2012, p. 11). Figure 11 above can be seen to link the two main ideas – the interaction of the cultural domain with the Structural domain, through two series of questions (which represent the internal dialogue).

To start the interlinked cycles with the structural domain, T1 is the point where “I” considers the structures they experienced as “me” in the past. In T2-T3 the discourse is articulated and re-articulated in correspondence with others (social interaction). This leads to a structural elaboration, where alternatives become possible (T4). The opening up of structural alternatives leads across into the cultural domain with cultural elaboration.

Meanwhile “I” is reflecting upon cultural conditioning at T1, and articulating the potential and possibilities in socio-cultural interaction (T2-T3) which in turn leads to the elaboration of cultural possibilities (T4), which reinforce one or more of the structural possibilities that were elaborated in the structural domain.

The overall effect of these potential changes depends upon the context, or society in which they are promulgated.

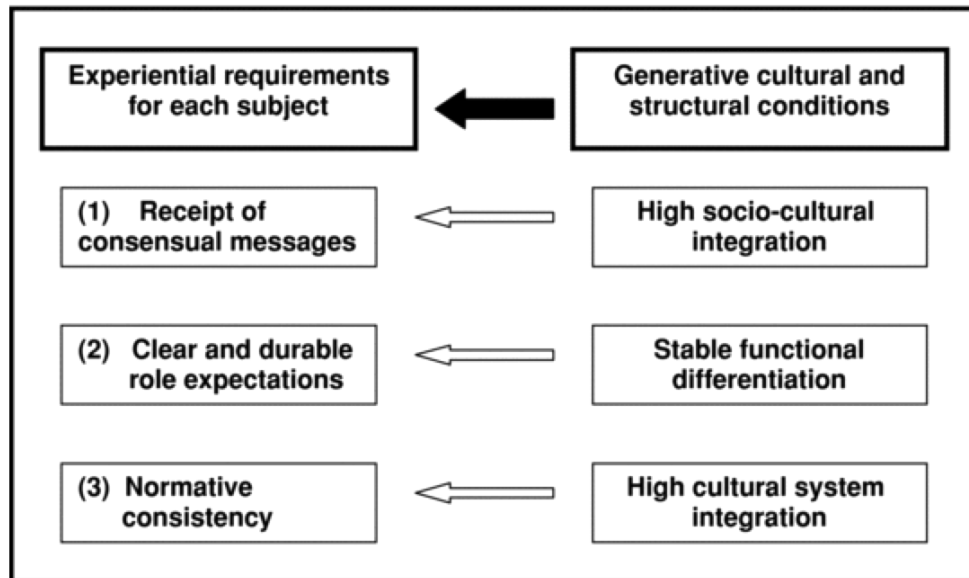


Figure 12 Conditions for socialization in modernity (Archer, 2012, p.91)

Many of the issues raised by the participants in my study related to the absence of the elements labelled 1, 2 and 3 in Figure 12, and I will argue later that it was down to either a lack of agency, or the inertia present in a system that is, in practice, multiple systems, each with their own moment of inertia. According to Archer (Archer, 2012, p. 90), all of the conditions above need to be in place to effect change. The twist comes in the tail, since for participants to continue as members of the community, change needs to occur in the way that they would choose, or could at least be aligned with (Mead, 2009, p. 199), or else their values, and their personal status, would be imputed.

Methodology and methods

There are four elements that define the way in which a research project is framed. Of prime importance is the research question that needs to be answered. This, in turn, is inevitably framed by somebody with their own view of how the world is constructed, and the nature of truth. The worldview of the investigator, then, comprises the second factor. The third factor is the menu of potential approaches that are open to the investigator. This includes the techniques with which the investigator is familiar and fluent and those that the wider community would use to

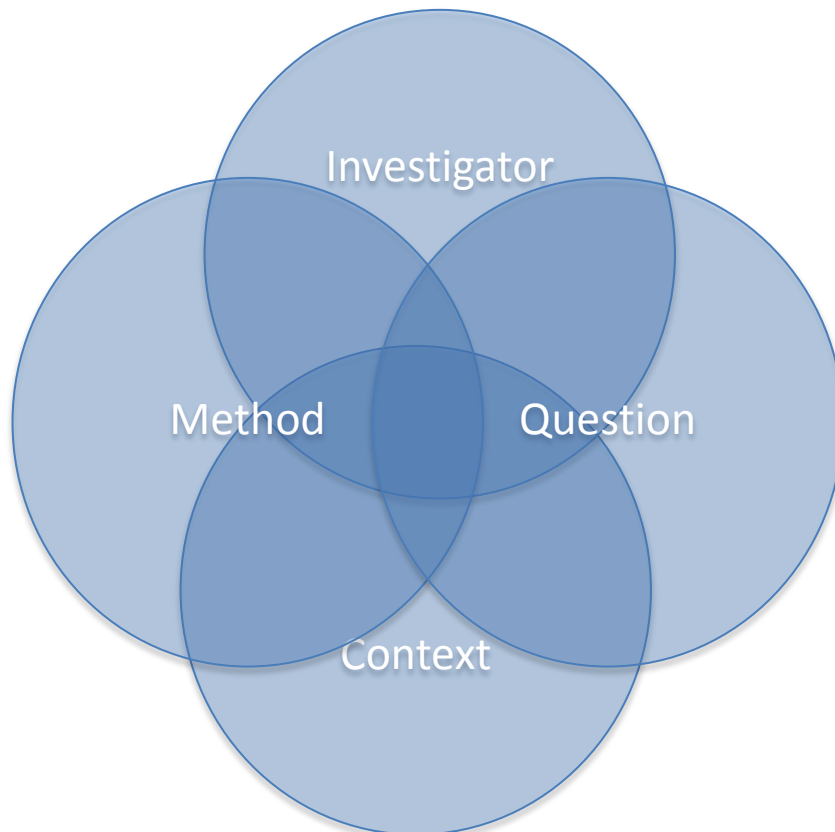


Figure 13 The overlap and interdependence of question, investigator, context and methods

investigate similar questions. The final element is the context of the study, which includes the constraints that the environment puts upon those participating in the research. The protocol chosen will lie within the overlap of these domains.

The research question

The research question arose because of the importance of maintaining and, where possible, improving the student experience, in the context of increasing pressures upon University and clinical academics. Students are complaining about the lack of structured teaching in the clinical environment. Clinicians are under increasing pressure from the chief executives of the trusts to deliver a clinical service to the local health economy and University clinical academics are also required to develop successful research activities. We need to develop a sustainable way of ensuring our students get the education and training that they deserve to prepare them for working in the local health economy. At the same time we need to ensure that our clinical colleagues can meet the different and sometimes competing imperatives that they face. The research question then is:

"What are the factors that frustrate or facilitate clinical academics engaging with teaching undergraduate medical students?"

Asking this question directly would result in a list of, more or less, practical solutions, but would give no insight into which deeper questions underlie the core problem of a lack of engagement of a very large number of clinical academics with undergraduate medical students. Consequently, I am interested in the narratives my colleagues use to explain the factors that led to them becoming involved with teaching medical students or which they feel hinder that involvement. Because each participant has their own understanding of the context in which they labour, the perceived barriers and benefits are proxy measures for the actual constraints and enablers. The individual constraints and enablers are in turn indicators, at best, of the generative mechanisms that underlie the decisions. Because the responses are so deeply embedded in the institutional and personal context of the participants I selected a discursive analytical method rather than a rigorously quantitative approach.

The investigator

My background, as a basic medical research scientist, means that I am likely to face any research problem from a purposive/pragmatic perspective since this is the preferred approach for my "academic tribe" (Beecher & Trowler, 2001, p. 36). The way in which the naturalist, reductive, approach leads to an understanding of phenomena in ever increasing detail produces a tension. The more detail one knows, the harder it is to integrate that detail into a greater understanding of the whole. This tension was articulated very clearly in the middle of the last century by the debate between CP Snow and FR Leavis (Leavis, 1963; Snow, 1998). The two protagonists were at opposite poles of the debate between those who regard knowledge as detail (Snow, 1998) and those who regard knowledge as requiring a wider overview (Leavis, 1963). Both are, of course, correct.

There are two aspects of this debate that are important for the current discussion. The first is that the method of grounded theory, to be discussed later, originated during the prosecution of that debate. The second is that the debate chimes with recent work in another field with which I am familiar, neuroscience and neurology. In a book entitled "*The Master and his Emissary*", Iain McGilchrist (McGilchrist, 2009) reminds us of the story told by Nietzsche, that I paraphrase here:

There was once a wise ruler. He was so wise and benevolent that everybody wished to be ruled by him. As his kingdom grew, so did his cares and concerns. So he found it expedient to appoint a Grand Vizier to whom he could delegate the daily tasks. Unfortunately the Grand Vizier was not benevolent and the people suffered. Since the Grand Vizier had appropriated the means of government the benevolent ruler became powerless.

Iain McGilchrist's thesis is that the right hand side of the brain, which deals with "the big picture", the overview, and Gestalt (the whole is other than the sum of its parts),

has ceded control to the left-hand side of the brain, which deals in facts, details and the immediate. In a nutshell this also summarises the debate between CP Snow and FR Leavis. CP Snow championed reductionism inherent in the scientific approach to progress (the work of the left brain) and FR Leavis argued for retaining the bigger picture. This debate did not occur in a vacuum, since it also mirrors the presumed transition from modernism (Leavis, 1963) to post-modernism (Snow, 1998) in which there is no overarching narrative. To my mind this debate has been crystallised, and laid to rest, by Strohl (Strohl, 2006) who maintains that the overarching narrative remains, even if it is only "the hope of progress" (Medawar, 1972). Rather than being in the world called into being by the post-modernists, we are engaged in a society struggling with late modernity (Archer, 2012). This is of significance to our later considerations of grounded theory but also to the development of my thinking.

According to Moses and Knutsen (Moses & Knutsen, 2007) there are three methodological foundations. *Naturalism* relies on scientific method to expose pre-existing truths. *Constructivism* regards truths as being dependent upon the context in which they are disclosed. *Scientific realism* recognises that investigators are context bound in uncovering facts about the existing world. In the laboratory I am a scientific realist. In the realms of education, sociology and psychology, I regard myself as a constructivist/critical realist.

There is one further element to consider in appreciating the stance that colours my choice of method and, indeed, my research question. This is the issue of critical hermeneutics (Kincheloe & McLaren, 2008, p. 414). My training in theology, and particularly in Biblical interpretation, has convinced me that we each see the world in a particular way. The lens through which we see the world is shaped and coloured by our experiences and prejudices; this is our hermeneutic. My hermeneutic is constructivist/realist, in that I believe that we each have our own view of reality that is shaped by our experience and the context in which we find ourselves (Eakin, 1999). My hermeneutic is also critical, because, although one would argue that the facts *should* speak for themselves, we must recognise that in selecting and articulating

them we are also applying our own interpretation of them. This double hermeneutic (Scott & Morrison, 2006, p. 123) is unavoidable, so must be declared.

There are consequences of looking at the world through critical constructivist hermeneutic. It accepts that the world is a human construction, and consequently, changeable. It recognises that knowledge is context laden and can be viewed through several epistemologies. It expects that the observer will interpret the responses of the participant in a manner that is laden with context (Moses & Knutsen, 2007, p. 287 table 13.1).

The context

The context of this study is the University of Liverpool School of Medicine. It is a large medical school, and is part of a Russell Group university. The medical school, or more precisely its associated clinical academics and clinical teachers in hospital trusts and general practices, is integral to the health economy of a large conurbation. The School has been performing poorly in the National Student Survey (Ipsos Mori, 2011), although our students are amongst the best prepared for clinical practice in the country (Cave et al., 2007). At the time this study commenced it was undergoing a complete review of the curriculum, and had just experienced a change in leadership. All of the senior personnel (me included) changed their roles and there was a sense that all things were possible.

There were two consequences of this change. The first was that I (changing from Deputy Director of Studies to Director of Medical Education Research) no longer held managerial responsibility for the educational process, the second was that there was a willingness to discuss how best we could educate the next generation of medical students. This meant that a discursive qualitative approach was appropriate. However, it also meant that the prospective participants needed assurances about confidentiality, and that the interviews should be conducted in privacy. To reassure colleagues I undertook that they would be able to check and if necessary annotate

any transcripts before they were analysed, and that their identities would be protected.

A further consideration was built into the sample design, since I excluded all colleagues for whom I had had a direct management, pastoral or mentoring role.

There are both advantages and disadvantages in being involved in researching one's own organisation (Moore, 2007). On the positive side, I understand the context of my organisation, and the issues that affect the daily lives of my participants. On the negative side there is the ethical consideration of the extent to which they should feel compelled to bare their souls in the presence of someone they are likely to meet again. This was countered, and to some extent compensated for, by my understanding of their situation, and what I hope are reasonably well-developed interpersonal skills. The biggest issue, which I had only partly foreseen, is that some of the information coming out of this study is very critical of the management and leadership of the medical school and University. So I find myself having to discuss, and make public, some truths which some current colleagues find unpalatable.

The method

The original formulation of grounded theory (Glaser & Strauss, 1967) was derived from a naturalist perspective. According to Charmaz (Charmaz, 2006, p. 5) their intention was "to construct abstract theoretical explorations of social logical processes". The basic principles of the grounded theory approach remain true today.

- Concurrent data collection and analysis
- Coding on the basis of what the data says
- Multiple iterations of the coding process
- Memo-writing as a process of elaboration, clarification and defining
- Sampling to clarify the outcome

The method therefore is inductive-abductive in that the data shapes the analysis, provides the codes, and can be re-examined in the light of what is discovered. It is a comparative method where data is compared with data, data with codes, codes with

codes, and codes with categories. It is both interactive and iterative, because the analysis doesn't end with the first coding, but is provisional in the face of newer data. Subsequent work by Strauss and Corbin (Strauss & Corbin, 1994) moved away from this naturalist perspective, by accepting that the investigator would necessarily, and should, bring their own knowledge and experience to interpreting the data. Rather than considering their field of investigation as a *tabula rasa*, denying the existence of existing knowledge and theories (Charmaz, 2011, p. 166) they should aim to be "theoretically agnostic" (Henwood & Pidgeon, 2003, p. 138). The alternative is pretending theoretic ignorance. This, in my mind, is the crucial difference between the original expression of grounded theory and the current iteration, known now as "constructivist grounded theory" (Bryant & Charmaz, 2007). The key feature of constructivist grounded theory is that it "places priority on the phenomena of study and sees both data and analysis is created from shared experiences and relationships with participants" (Charmaz, 2006, p. 130).

Following the transcription and initial coding of the ideas contained within the transcript there are a series of iterative steps, which enable increasing clarity and definition. At each stage of the cycle conscious decisions need to be made, based on the data itself, resolving the detail and also the significance of each of the utterances. This follows a constructivist paradigm that can be illustrated with reference to my recent work on adult learning theories (Taylor & Hamdy, 2013) (see Figure 14)

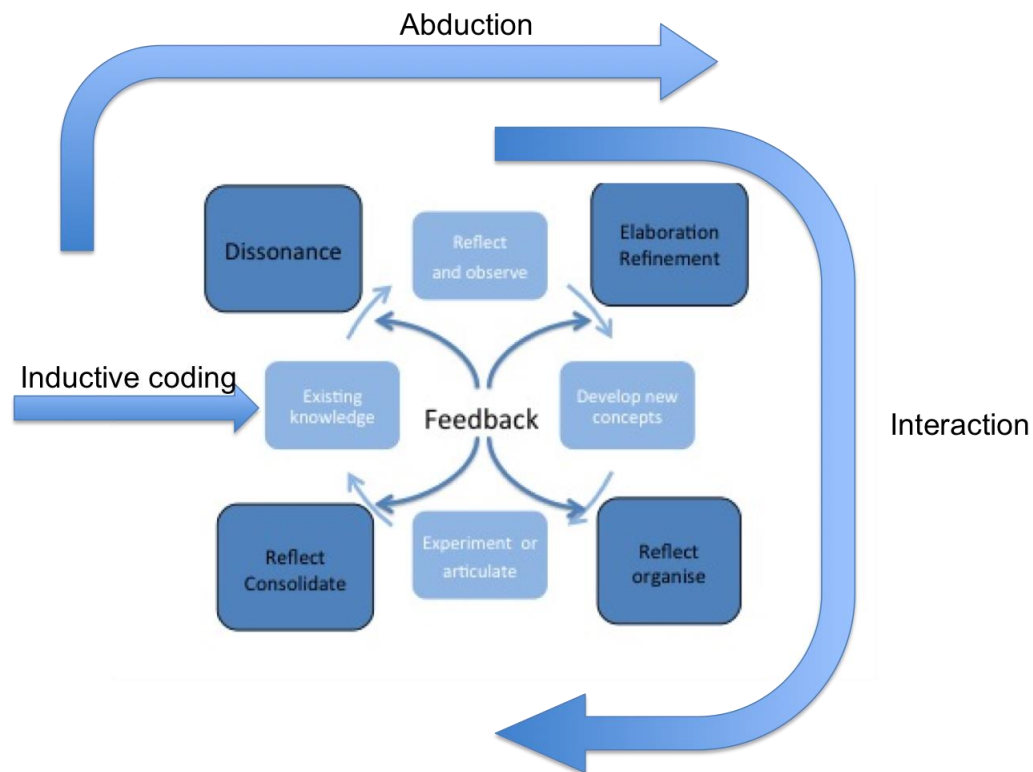


Figure 14 The cycle of induction/abduction and interaction with the data, after Taylor and Hamdy 2013

The transcript is read, closely and systematically, and when a phrase or sentence is identified which encapsulates a new idea this is highlighted as a code (inductive coding – see figure 14, for a screenshot of the coding process, see figure 15).

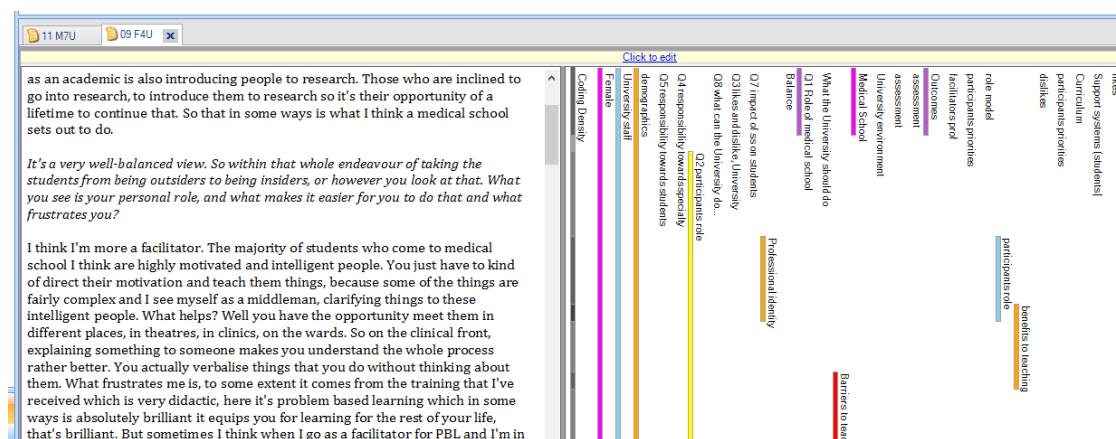


Figure 15 Screenshot to show the coding process

The code is given a unique name and the exercise proceeds until the whole transcript has been coded. These are known as the initial codes. In this study, the initial coding was performed on the first five interviews. At that point each of the codes was

considered carefully in relation to other, apparently related, codes. If the ideas expressed by the codes were identical or very similar then the codes were merged. If there was a dissonance (figure 14) between related codes, or if there was a new or startling expression, then this triggered "abduction". Abduction involved reflecting upon the new or startling information and attempting to identify as many possible explanations for that as possible (elaboration). On occasion this meant refining one of the codes, it also resulted in steering the direction of the conversation with the participants in subsequent interviews to try to highlight or clarify the statement that had caused the dissonance. This "theoretical sampling" (Birks & Mills, 2011) is usually recorded in the "memos", short notes made at the time of coding that assist in the subsequent analysis and the final documentation of the study (see table 3, below). The memos are working documents and are added to and amended frequently in the data collection and analysis phases of the study.

| Name | Modified On |
|----------------------------|------------------|
| 1205 | 12/05/2014 11:28 |
| after 13 | 08/04/2014 17:16 |
| after 5 | 08/04/2014 15:55 |
| agency | 23/05/2014 20:50 |
| assessment | 12/05/2014 20:31 |
| Balance | 18/05/2014 13:41 |
| barriers | 18/05/2014 11:56 |
| champions | 18/05/2014 16:24 |
| clarity | 18/05/2014 15:54 |
| Clinical commitment per se | 12/05/2014 20:31 |
| communication | 18/05/2014 15:54 |
| demographics | 12/05/2014 20:31 |
| dislikes | 18/05/2014 10:58 |
| leadership | 23/05/2014 20:42 |
| likes | 18/05/2014 11:21 |
| OVERVIEW | 12/05/2014 15:27 |
| positives | 18/05/2014 12:45 |
| Question set | 12/05/2014 20:31 |
| recognition | 23/05/2014 15:33 |
| role model | 12/05/2014 16:20 |
| student experience | 17/05/2014 15:34 |

| | |
|-------------------------|------------------|
| Student support systems | 12/05/2014 20:31 |
| support from University | 23/05/2014 20:27 |
| training for education | 18/05/2014 16:24 |
| transparent resource | 18/05/2014 16:24 |

Table 3 List of memos used in this study (up to 23/05/2014)

At each stage of the process the investigator is required to reflect on their actions and understandings and ensure that their decisions are consonant with the data in earlier and future interviews. The reflections are annotated within the memos and where necessary the data is recoded. This early interaction with the data leads to the ability to refine subsequent data collection and anchors the coding in the data, rather than in the personal opinion of the investigator.

There are two elements that are missing from the above discussion. The first is, that in constructivist grounded theory, it is permissible, and indeed expected, that the interviewer will analyse the responses of the participants through the hermeneutic of existing classical theories, and developing theories. This is in contrast with the early formulations of grounded theory, which rejected attending to classical theories until the data collection was complete. The second element is the recognition that, following the writings of Doug Ezzy (2010) the interview is an embodied process. Ezzy regards a good interview as one that requires a "reflexive awareness of all aspects of the performed dimensions of the interview"(Ezzy, 2010, p. 163). The relationship between the investigator and participant, or the ability of the investigator to form a relationship with the participant is fundamental since it involves "communion": cultural understanding, respect and participation in the shared endeavour of the interview.

This latter point is evident from the following excerpt from the ending of one of the interviews in this study

Okay we have gone through all questions on the list, is there anything else you feel you haven't said?

No, there's nothing more to add, you've asked questions which have drawn out thoughts and feelings that I have had for a long time ... I feel a lot better. Thank you very much!

07M4U

This strength unmasks a further difficulty. When participants are explaining their actions, their hopes, their fears, their experiences they are inevitably going to provide a discussion that reflects their understanding of the culture in which they find themselves (Holland et al., 1998) and their understanding of their current context (Bourdieu, 1977) either of which may be inaccurate (Eakin, 1999). Uncritical analysis of the data may compound these issues. A reflexive analysis of the data sensitive to the contexts, concerns, and culture of the participants can prevent misconceptions, which might otherwise render the emerging theory invalid.

The protocol

A series of questions was devised as the foundation of semi-structured interviews. The protocol, including the interview schedule was submitted for and obtained ethical approval. This occurred in two stages since approval was sought and granted separately for a series of preliminary interviews (MRETH 201207112) and also for those that form the main body of this study (VPREC 20th November 2013).

In the initial formulation of the study, nine questions were devised each with additional, or guide questions, should the original question prove difficult to answer. Since the specific outcome of the study is expected to be a change in the systems that the University employs (Argyris & Schön, 1996) and it is concerned with power relations between the participant in the institution, and to some extent between the investigator and the participant, this study is effectively "organisation research" (Buchanan & Bryman, 2009). For this reason several of the questions deal with the perceptions of the participants regarding the institution.

The original questions are given in the following text box

Interview:

"Thank you for sparing the time to talk with me. I am hoping to record this, transcribe what we say, and then, after I have checked it with you, anonymise the transcript, and after the initial analysis and coding save the digital recording in a separate file area. Are you happy with that? Are you ready to start?"

1. What do you think is the purpose of the Medical School?
 - a. If help is needed, talk about the different elements of training people to become doctors.
2. What do you see as your role in the University/Medical School?
 - a. What facilitates that?
 - b. What frustrates that?
 - c. What is/are your priority/ies?
3. What do you like most (least) about working at this University?
 - a. Why?
 - b. Does it change how you feel about your role? (why/why not)
4. What do you see as your responsibility towards your specialty (clinicians)/subject area (non-clinicians)?
 - a. What facilitates that?
 - b. What frustrates that?
5. What do you see as your responsibility as far as the students are concerned?
 - a. What facilitates that?
 - b. What frustrates that?
6. Can you explain what you think is the University's policy on student support?
 - a. If the answer is no, or wrong, prompt with a brief explanation of academic advisors, and student self-referral to University funded support systems. (how could the Uni have made them aware?)
7. Do you think the system works to the student's advantage?
 - a. What would make it (even) better?
8. What could the University or the Medical School do to support or encourage you in your role of supporting students through the business of becoming Doctors.
9. "Thank you for that. Is there anything else you would like to add to what we have been talking about, or anything you feel you would like to clarify? It will take me a couple days to transcribe this, but I shall send you the transcript by email as soon as I can. If you look at it quickly and let me have it back with any corrections or changes, it would be really helpful. Thanks"

Figure 16 The interview protocol

In later interviews question six and seven were omitted, and have been excluded from the analysis, since they proved to be of no consequence to the unfolding theory.

There are two issues to discuss which relate to the sample of participants for this study. First is the identity and selection of the participants, the second is the number of participants that would make an appropriate sample for the subsequent analysis.

The identity and selection of participants

The research question relates to the factors that make it easier or harder for senior clinicians to be engaged with teaching medical students. Consequently the sample needs to be drawn from the population of senior clinicians associated with the University of Liverpool medical school. There are two groups of clinicians that might be expected to teach medical students.

The greatest expectation to teach medical students lies with the cohort of consultant grade clinicians who hold substantive university appointments, “clinical academics”. Individually they are University senior lecturers, readers, or professors and are each associated with a research institute. Their research interests determine the precise Institute in which they work. The University of Liverpool, Faculty of Health and Life Sciences, has five research institutes: Ageing and Chronic Disease, Infection and Global Health, Integrative Biology, Psychology Health and Society, and Translational Medicine. The School of Medicine works within a sixth Institute, the Institute of Learning and Teaching. It is important, for the discussion later, that the University of Liverpool no longer has significant departments. The allegiance of the staff member is expected to be with their (much larger) research Institute.

These colleagues, typically, have a job plan that will include an expectation of being involved with research, administration and teaching, like any other university academic, but also they will have an honorary appointment with one of the University Hospital trusts and a specified commitment to provide a clinical service. In former times job plans were fluid, and often verbally negotiated. It is becoming more

common, these days, to state the specific number of hours for the clinical commitment. At any one time, the University of Liverpool employs approximately 300 senior staff as clinical academics.

The other group of colleagues is those senior clinicians in the hospitals associated with the University, who are paid by the National Health Service, and whose prime occupation is providing a clinical service within the local health economy, “clinical teachers”. Paradoxically, this group of colleagues provides the majority of teaching to our medical students. Those colleagues who are involved in assessing our students are required to have an honorary contract with the University, and this is administered through the School of Medicine/Institute of Learning and Teaching. They have no requirement to perform research, although several do so. All senior NHS clinicians have a detailed NHS job plan which may, or may not, include a specified number of hours which may be devoted to teaching undergraduate or postgraduate medical trainees. Approximately 250 consultants have honorary contracts with the School of Medicine.

Since for this study I wish to understand the factors that either facilitate or frustrate clinical colleagues engaging with medical students it was necessary to draw upon those colleagues who have direct and active contact with students. It was therefore possible to draw upon the email lists held by the School of Medicine and identify likely participants on the basis of their activity, or being known through their involvement with students. I sent an email to each of 40 colleagues in which I explained the purpose of the project and included a consent form and the participant information form. I invited them to reply to the email if they wished to participate in the project and to identify any colleagues they felt that it would be valuable for me to talk with. All potential respondents indicated their willingness and some suggested additional names. On receipt of the emailed response I invited them to suggest times and venues that would be appropriate for a 40 minute interview. I endeavoured to ensure the appropriate gender mix of respondents (60% male, 40% female) and include both cohorts: those with substantive university contracts, and those with

ordinary university contracts. The sample was, therefore stratified, purposive, and convenience.

Knowing the majority of the participants ensures a clear understanding of their lived experience, and the context in which they work. This was unavoidable owing to my long contact within the University and my former senior role within the Medical School. It does, however, increase the care and rigour needed in the subsequent analysis of their interviews. It proved to be important, at every stage, to reflect upon the way in which I was interpreting the data. There were two strategies employed to facilitate this. The first was to code the responses in batches. The first two colleagues I interviewed were those with whom I was most familiar. I then interviewed three people I knew less well and analysed the transcripts of those first five participants together once they had been anonymised. The way in which the individual codes are displayed in NVivo® facilitates that since the participants were only identified by their source file title. In addition a colleague, not associated with the University and not familiar with the consultant body, but experienced in interpretive phenomenological analysis, independently coded the first participant's transcript using my final coding sheet and then checked the coding for every third participant thereafter. We discussed areas of disagreement, reflected upon the possible explanation, and where necessary I adjusted the coding, recoding all of the interview transcripts accordingly.

Sample size

It is difficult with qualitative interview studies to determine the optimum sample size. Classically one would continue interviewing until the dataset is "saturated" (Glaser, 1992). However, establishing the point at which saturation occurs is itself difficult. In one sense, saturation is the point at which future interviews yield no additional information. By its very nature, this is a *post hoc* definition. In this study I have been following the guidance offered by Francis and colleagues (Francis et al., 2010). Their suggestion was to define a fixed number of initial interviews, analyse the responses, and define a "stopping criterion" of two or three interviews with no further new

ideas emerging. It was necessary to determine the approximate sample size before applying for ethical approval. My initial perusal of the literature indicated that there were five potential factors that hindered or frustrated clinical academics teaching undergraduate medical students. These were

- primacy of research,
- lack of recognition/professional identity for teaching,
(Kumar et al., 2011)
- lack of support,
- lack of knowledge of programme,
- lack of skills development.
(Stark, 2003)

Assuming, in the worst case, that each interviewee only mentioned one of these potential factors, and that there was no overlap between the factors, it would suggest an initial sample size of five. The stopping criterion would indicate a further two interviews were necessary and so the minimum sample size would be seven. Although this would be a reasonable sample size for an interpretive phenomenological analysis (with the heightened concern for context and detail) it would seem to be a small sample size for a pure grounded theory analysis. For pragmatic reasons I applied for ethical approval for a minimum of 14 and a maximum of 20 interviews. The sample size analysis was complicated by the fact that there are two populations of participants: Colleagues with University contracts, and colleagues with NHS contracts. If there were no difference in the opinions of each cohort of participants a sample size of 14 to 20 would be too large. If there were a difference in their opinions the sample size of seven would be too small. In the event I employed a graphical method to determine when to cease interviewing (see Table 4).

In Table 4 each column represents a participant, in the order in which they were interviewed. Each row indicates one of the codes from the analysis at the finest granularity of recording. So, for example, under the code "what the university should do" comes the sub node "leadership" and under the sub node leadership comes "management". In table 4 the lowest sub node is recorded. This is significant, since at the coarsest level of granularity, barriers, benefits of teaching, professional identity and so on the data was saturated within three or four interviews. The cross

in the cell indicates that the participant articulated the theme at that node. The shaded bar indicates that they were the first participant to articulate it.

Table 4 shows that data saturation was almost achieved after the initial five participants, and was completely achieved after 12 participants. It also shows that the final two participants added no further information. It will also be noted that participants 9, 11 and 12 were the only ones to articulate unique themes. Participant 9 highlighted the importance of “being trusted”, Participant 11 highlighted the importance of “peer support for students”, and participant 12 highlighted “teamworking” amongst colleagues (other participants referred to “support of colleagues”).

Table 4, The themes articulated by each participant highlighting the first participant that introduced the node. For clarity the names of the nodes are excluded here, but can be seen in table 5

[illegible]

Results

Introduction

In this study I report the results from fourteen semi-structured interviews with senior clinical academic colleagues. The interviews were carried out during a period of change for the medical school (May 2012 – April 2014) after the appointment of a new head of the medical school, during the planning stage for the implementation of a revised curriculum, but before the design of the new curriculum had been unveiled. The interviews were conducted either in my own office, or if more convenient to the participant, in a private University office in the appropriate hospital trust. All interview sites were on University owned premises that afforded privacy (as required by the ethical permission).

There were five broad areas approached in the interviews. To give some context for the subsequent discussion about engagement with medical students, I asked participants to say what they thought was the purpose of the medical school and what they liked or disliked about being involved with the University. I then asked the questions concerning priorities and engagement, and finally asked the participants how the University could better support them in their role.

| Purpose | University | Engagement | Improvements |
|---|--|--|---|
| <ul style="list-style-type: none">•outcomes•curriculum•priorities | <ul style="list-style-type: none">•likes•dislikes | <ul style="list-style-type: none">•drivers•barriers | <ul style="list-style-type: none">•leadership•communication•recognition |

Figure 17 The main themes of this study

Each interview lasted between thirty minutes and an hour, the mean duration was 40 minutes and 31 seconds, and, once transcribed, each amounted to approximately 5000 words.

| | | |
|-------------------------------|--|--|
| assessment | alongside as barrier assessment as feedback competence good exam OSCEs poor exam progression prolonged observation too close transparent vs robust | |
| Balance | balance clinical and academic time balance research and teaching compartmentalisation education participants priorities priorities research primacy time | |
| Barriers to teaching | numbers tick box | |
| benefits to teaching | improving for this generation | |
| clinical commitment | busy-ness | |
| Curriculum | | |
| participants priorities | professionalism | |
| Medical School | Outcomes purpose | |
| Professional identity | barriers facilitators prof out of specialty participants expertise participants role recruitment referral super specialisation trusted want to but cant | |
| role model | apprenticeship how it will be | |
| Student experience | being a student cost to student development Growing independence | |
| University environment | dislikes likes | |
| What the University should do | agency Clarity Communication Encouragement Leadership | clear expectations space clear policies education as a term of employment dialogue choice collegiality firefighting management planning |

| | |
|-----------------------------|---------------------------------|
| | sensitive to clinical pressures |
| | seamless continuum |
| | tension |
| Recognition | |
| support from the University | Support systems |
| | Training for education |
| Transparent Resource | |

Table 5 The themes identified in the study, in the structure that pertained after the 13th interview, showing parent and child nodes.

All of the participants were senior clinicians (consultant grade). Nine of the participants (“clinical academics”) had substantive university contracts (five male/four female) and five of the participants (“clinical teachers”) were full-time clinicians with honorary university contracts (four male/one female). The overall gender balance was 9M:5F, which is a good reflection of the 60:40 observed in the study population as a whole. There were no clear differences in responses between male and female colleagues, and the only major difference between the university and hospital-based clinicians was their perception of the contribution of the other group. In the text that follows, each of the respondents is identified by a code giving their interview number, their gender, participant number by gender and their primary contract (Table 6). For example: 12M8H was the twelfth interview, the eighth male interviewed, who held a contract from a hospital. Each participant yielded data that was attributed to between 33 and 55 nodes

| Name | Nodes | References |
|--------|-------|------------|
| 01 F1U | 51 | 160 |
| 02 M1U | 46 | 134 |
| 03 F2U | 55 | 126 |
| 04 M2U | 50 | 152 |
| 05 M3U | 46 | 115 |
| 06 F3U | 42 | 71 |
| 07 M4U | 46 | 96 |
| 08 M5H | 43 | 82 |
| 09 F4U | 55 | 102 |
| 10 M6H | 49 | 114 |
| 11 M7U | 43 | 97 |
| 12 M8H | 45 | 117 |
| 13 F5H | 43 | 119 |
| 14 M9H | 33 | 70 |

Table 6 The Source table for this study, showing the name attributed to each source, and the number of identified nodes and responses in the transcript.

Purpose of the Medical School

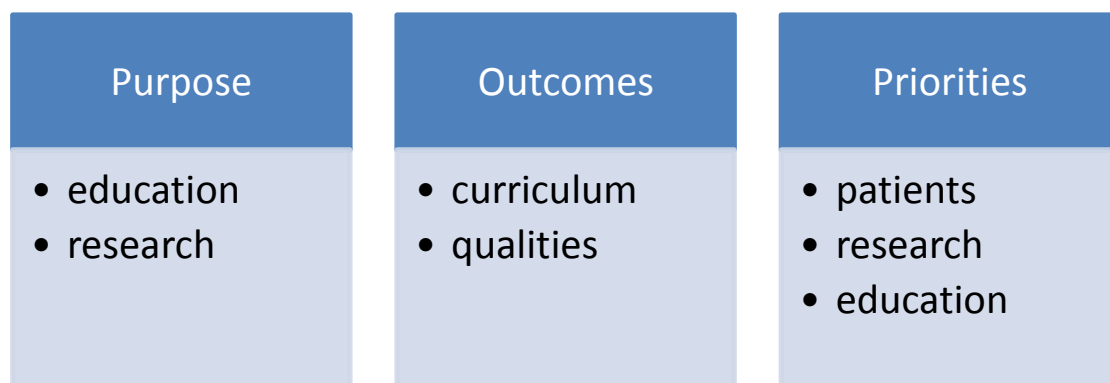


Figure 19 The purpose of the medical school and prioritising

Purpose

Education

All participants readily volunteered that the purpose of the medical school was to educate the future members of the profession, but there was a greater or lesser degree of qualification alongside the bald statement.

I think the primary purpose is to produce good doctors for the future.

03F2U

A similar train of thought was evident from my most senior female participant

To train doctors. Or rather, to educate doctors and that's more important.

13F5H

The following, though, is the most accurate reflection of the aims of the medical programme given in the programme specification.

...to produce caring, competent graduates, fit for practice as foundation year one doctors with the capacity to develop beyond that for specialty practice

01F1U

The qualifiers used by two other colleagues are important and informative. One articulated the purpose as being part of a process:

I'd like to think that the purpose of the medical school is to make doctors. It's a machine for making doctors out of the right stuff, and I can go off on one here. I think it helps if you have the right building blocks to make your medical students into doctors and for that reason you have to have the right building blocks, and the right school, and the right people in the right school. I don't think there is a default position whereby the medical school itself can, just by the nature of the medical school, get it right. I think it's got to have the right process really, from the applicant selection, the process in the school and what comes out of the other end.

04M2U

This was from an interview early in the collection period in academic year 2012/2013, and, as such it prefigures some of the conclusions of this thesis, and touches upon a period of unrest that was starting as these interviews took place. It had just been announced that a process of curriculum review was to be undertaken. The potential importance of working alongside the clinicians in the hospital trusts, to produce graduates “fit for practice as foundation year doctors” was highlighted by the second participant, who was the first to raise the business of research.

Well, firstly to provide medical students to qualify for the next generation of doctors. Secondly, I think we really are in the business of showing the clinical teams that we provide good medical students. I think we have to negotiate very carefully with clinicians to make sure that we are producing medical students that are fit for purpose. So I think it's both ways round really. There's also a research element we should be doing, as far as the medical school is concerned, which is what you [*David Taylor*] are partly doing

02M1U

Research

Research was a key theme voiced by several participants in response to this first question

In its entirety the purpose of the medical school is to do a high-quality research, pushing back the frontiers and boundaries of medicine both in terms of basic science and in clinical medicine, but also to teach medical students to become functioning doctors. If you focus on the teaching side, I guess, for me the focus is to run the curriculum and to teach medical students in such a way that they become competent, functional, communicative, safe doctors who also are enthusiastic and understand the need how to acquire ongoing learning.

07M4U

The more senior a participant was, the more they appeared to be seeking a balance

between the educational and research roles:

Medical School; really depends whether you define it purely on the basis of an educational role or the medical school in the bigger world as part of university. I tend to think that shouldn't be any separation between a leading academic research place and the teaching of undergraduates, because I personally take the view that it goes across. But structurally it is separate and ultimately it is our requirement to produce the best trainee doctors. But I think the medical school in the sense from the academic side, a medical school is also a centre of research, so it has the advancement and betterment of the medical sciences and the care and treatment of patients. So I think it really depends how you separate those ideas out.

11M7U

This participant returned to the question several times during the interview, each time developing his train of thought resulting in:

But I think it's about creating a culture where excellence is always thoughtful, it isn't about being a tradesman, it isn't about just having a particular skill. We've got to create an environment where they themselves *[the students]* can see where they can go.

11M7U

Outcomes

Curriculum

There are several facets to a medical programme, and these include the obvious knowledge, and skills, but also the environment and the hidden curriculum.

The purpose is to produce good, enthusiastic, caring, knowledgeable doctors. In order to do that it needs to do at least two things. One is to ensure that they acquire the knowledge base and competences required, but secondly that they are taught in an environment where they enjoy what they're doing and are in contact with good mentors and role models.

05M3U

There was a broad view of the knowledge base required of this generation of medical students, which went beyond the basic medical and clinical sciences traditionally expected. Students should also know about

Safe and effective clinical practice, communication and consultation skills, their view of the population perspective on health, and its underpinning clinical epidemiology and related evidence-based clinical practice... The science to do with individuals, groups and societies, and behavioural science,

and the things to do with professional and personal development, so legal, ethical and historical issues, ... and, and, and to do with the safe and effective clinical practice and the related basic and clinical science that underpins our practice. Oh, and, if it's not clear in what I've already said, obviously an approach to understanding, interpreting and implementing research evidence.

01F1U

The outcomes of the medical school included, for more than one senior colleague, the impact on the local health economy, linking academic development and research through to an improvement in clinical expertise. The following is the most fully developed expression of that idea:

But it would seem to me that part of the role of the medical school is also to create an environment to foster research and development within medicine. In order to progress the science and art of medicine, we need an academic infrastructure to enable that to happen, and that research and development goes alongside the learning and teaching, and so the two should be synergistic and should be compatible. I think that the other thing that a medical school also does is that it enables a critical mass of people who are able to maybe work and think at a higher level and also to work in a clinical environment. So as well as the pure academic research, which is away from the bedside, it also drives the clinical expertise at the bedside and clinical working.

14M9H

In a similar vein, one colleague was explicit about the wider role of the medical school:

I suppose the medical school has a responsibility for kind of being custodians of, and setting benchmarks and for standards which is maybe not as, on a personal level, producing good doctors but raising standards, on a national and international kind of basis.

03F2U

The important role of collegiality, dialogue and synergism between the different parts of the health economy is one that resurfaced in several guises throughout the interviews.

Qualities

Not all participants were explicit about the importance of developing particular qualities in our medical graduates. There was a consensus, however, that we need to produce life-long learners who are able to cope with change.

We need to produce people who are happy to learn and to go on learning because certainly in my long career we have seen fundamental changes and therefore you have to have the sort of mind that will accept change and develop ... not forgetting the basic science and putting the whole business together so that we can produce caring, kind, confident, conscientious, competent doctors with all of those attributes in a five-year programme.

02M1U

One participant phrased it in a different way, as she enthused about the final year students she had been working with recently.

You would just want them to be your foundation year doctor, or your trainee, and you'd want them to be in your specialty. Every single one of them has had a sensible approach, they are keen to ask questions, they've got great communication skills. They've got superb communication skills but they do have lots of knowledge there to back that up... what I like about this medical school, I think it breeds great all-rounders, who can communicate, who've got knowledge there. And who know where to find things and know their limitations

03F2U

Behaviour, attitude, communication skills and interpersonal relationships were recognized as important curricular outcomes

And then I guess is more generic skills that are more difficult to define and therefore much more difficult to teach, but... How to get on with people, is part of communication, but... Accepting advice, accepting constructive criticism, as long as it's not destructive... And how to grow I guess. The doctor skills you need for self-directed learning, more nebulous concepts but very important.

10M6H

One colleague went further in his expectations:

But the thing that probably is, I think to me, overarching and quite important for one to prioritise, is behaviour. Rather than... Actually not behaviour... conduct. And I choose the distinction between the two because I think that behaviour can be adaptive or hidden but conduct is more what you are really within yourself and those elements should be brought forward.

08M5H

Priorities

The two priorities highlighted by all respondents were their clinical commitment to their patients and education. If they were University clinical academics, there was a third, which was their research. The concept of serving two masters recurred.

The clinical workload is an issue. You are the classic, biblical, servant of two masters. ... I have seen it from both sides, and I underestimated the issue of serving two masters, because, you know your contract may say you're 50/50 or 40/60 you can be sure as hell that the University and the NHS both want far more than that each. So that's a real problem, trying to do what the University wants what the NHS wants, because it is virtually impossible in terms of the time you have available. So that's a problem in terms of demands on your time.

07M4U

The battle is always unequal, though since

... the thing about being a clinical academic is that the pull of your work will always be to the clinical side of things.

03F2U

Patients

Clearly, everything is dropped to concentrate on a patient *in extremis*, but a focus on patients was clear in all participants.

... stuff happening unexpectedly, people being taken ill and things like that... Because the clinical things always come first.

13F5H

I guess the ultimate responsibility is safe patient care, effective and cost-effective patient care. Ultimately you do have a service commitment, you've got to see the patients in clinic, you've got to operate and whatever else...

10M6H

The focus on patient care can detract from supervision and teaching of junior colleagues

Well, you've got fixed clinical activities where there are a lot of outpatients coming by appointments, and they've got to be dealt with, and inpatients and so on, so you'd never set up a formal teaching session really when that was going on. You often have them with you in clinic, that's OK, but then the problem is if it turns into a formal teaching session and the clinic overruns, you're stuck then. Because people like me are actually employed by the NHS to see patients. You see what I mean?

13F5H

Research

As one might predict, participants recognised the primacy of research for the clinical academics with substantive university contracts. This is quite explicit in some departments, and it is a refrain that will be seen again when we consider reward and recognition:

It's one of the major tensions ... I was talking to a professor of one of the associate divisions within the medical school a few days ago and he was, and I asked a question "how clearly should the medical school be aligned to research?" And he was saying that he thinks that that's fundamentally the right thing to do, but he accepts that the educational component is not properly recognised or funded, and if you're coming to work here in a University, in an academic department then your prime role is research not education.

02M1U

I've had my appraisal and my PDR [*personal development review*] and both of them have said "you need to drop your educational activity, because it's not taking you anywhere and you need to be spending any time trying to get those bits and pieces of research you are doing pulled together, for the RAE."

03F2U

There was realism from several participants that the world has changed to require more focus on fewer things.

I do like to research, I also like to teach, and the day of the polymath has gone. I think we are no longer in a position where one or two papers a year and an occasional grant is good enough for the University's expectations of us. It has changed.

04M2U

Participants with honorary University contracts recognised this as an issue for their colleagues

They do have different pressures though, they have pressures-their research contribution is supposed to be 100%, they only get paid for 50%. They are under pressures of a different sort - as I tell the registrars when they go on about it ...

13F5H

Education

Although everyone felt the pressures to try and balance educational provision with research and clinical commitment, there was also a strong feeling that it was crucial to find the balance

A significant part of [my role] has been to make a continued input into teaching, hopefully of good quality, and then input when needed into teaching administration

05M3U

I think we have a responsibility and a more general sense, with these intelligent people who come into medicine, to educate them to the best of our ability to ensure that they come out as being the best doctors that we can produce to deliver the best healthcare for our population. So I think we have almost an ethical duty to be driving that agenda forward.

14M9H

I think that if people have got time to teach, and they are encouraged to teach, and their peers encourage them, then they enjoy it, and they'll do it anyway. People will basically do things they enjoy, whether you pay them or not.

05M3U

The same colleague highlighted that there is more to education than face-to-face teaching, but that an educational endeavour like a medical school requires academic administration, which is an added, and different, pressure.

It's very important I think the clinical academics are actually seen as role models; as good-quality clinicians, as well as researchers. It's just not acceptable to have somebody who is brilliant at their research and incompetent clinically. At the very least they need to be very good. And ought to be above average as a clinician. The teaching has to be good quality as well. The quantity may be compromised, and the time spent on it maybe compromised by the other priorities, and if you end up doing some administration of some sort or other then it becomes very difficult to keep all the balls in the air really.

05M3U

Working with/for the University

| Likes | Dislikes |
|---|--|
| <ul style="list-style-type: none">• academic environment• students• intellectual challenge• flexibility• collegiality | <ul style="list-style-type: none">• inertia• poor communication• competition• red-tapeism |

Figure 20 What participants like and dislike about working with/for the university

Likes

There were 29 references to things participants liked about working in or with the University, and 22 references to things they didn't like, and for most, the "likes" outweighed the "dislikes".

Academic environment

One of the participants paused for a long while before answering the question about "What do you like about working in the University?" Her response is the one that most fits my own preconceptions.

I always wanted to be "academic". So it's that feeling that you're doing things the right way. It's not the intellectual challenge bit, it's using your intellect, I suppose. To do whatever it is you're doing, properly...

01F1U

For most of the participants, the attraction of the academic environment was linked to the University status as a member of the Russell Group. Not simply because of the status, but more because of the type of colleague that was likely to be attracted to work in a Russell Group University – this was the case whether they were participants with a substantive university contract or clinicians with an honorary university contract.

I think the most attractive thing is the University itself. I think it's reputation, its presence in the Russell group, and the potential of what can happen.

08M5H

But what I like most is the fact that, I know it's one of the top Russell group universities, I'm proud to be part of the Russell group. There is a very good [identifier removed], so probably I'm veering from education to research, but there is enough content here to give people good teaching in this specialist area I'm working in. So I'm very proud of that. The [identifier removed] group, being part of the Russell group University.

09F4U

One of the participants in particular gave me pause for thought, and serves to emphasise that all things are relative.

The thing I like the best is the quiet and the peace. Because you can come here and this is more like a peaceful, structured world, where there's not a phone here... I think it's also a time for more intellectual or abstract thought I suppose. I think it is about that type of thinking rather than very much more practical work, I guess, in the role of consultant with management responsibilities, where you are, where it is much more practical and pragmatic. My nature is that I find the abstract more conducive really.

12M8H

Students

The students themselves are the key driver for senior clinicians engaging with educating undergraduate medical students, and will be mentioned below. The power and potential of that factor though is well illustrated by the following participant:

I organised teaching rotas, bedside teaching on our wards, and it's interesting that my colleagues also say the same thing, they'll say the same thing with say "(moan) I've got my teaching session..." And do you know, afterwards they always say the thing is the amount you get back from it. Which is the reason for doing it, and sometimes you can forget that particularly when you are getting ground down by things, but part of the reason is, that it's fun to spend an hour with a group of really, exceptionally bright, interesting young people, who want to learn. I mean it's, it's every teacher's dream, that, to have students who are just there hanging on your every word. Who are actually going through similar things to what you went through, so you have a shared experience. So they'll [my colleagues] come back and say, "that's great, I forget how much fun it is teaching medical students, great fun, great fun!"

03F2U

Intellectual challenge

This refers to the intellectual approach to doing things. For one of the respondents it was a very personal focus, for another it related to the invigorating effect of having (equally) driven colleagues

...it's wanting to do a good, thorough, robust job at things not what would be called the "quick and dirty approach"

01F1U

I suppose that the best thing is that a lot of the people that you meet are driven by wanting to be the best, do the best, make a difference, are normally quite critical thinkers, are generally interesting people to work with, they've normally got energy, a bit of humour at the edges, and that kind gives you energy to work with that. So that's the kind of environment that makes you more creative, more able to do things.

14M9H

Flexibility

Interestingly several participants mentioned the flexibility of a University environment, and the freedom to be able to make a difference. This is striking because, as will be seen below, other colleagues were frustrated by the inertia within the University system.

... the best thing has been the freedom to do what we've achieved in the last few years without being told "no you can't do that, you can't do that". That was something that frightened me when I started about six years ago, would I be allowed to change the programme? And thanks to great colleagues at the top, we've been allowed to change it and that's been great, and I've had lots of support.

02M1U

I like the fact that the University has been able to change. Like in any big organisation there are people and barriers and things that happened, but I was lucky, I came at a time when there was a vast amount of change and I've seen that change go through.

11M7U

Collegiality

It was clear from the participants that much of the enjoyment of working in or with the University was the colleagues that one associated with. This spread across the continuum from working with close clinical colleagues, through to being a member of

a larger multidisciplinary team, and on to being able to network with colleagues from widely different academic backgrounds and disciplines.

Well the things that make it easier are colleagues ... to be able still to call all those people friends and work with them and I've known them for ages and we still work well together, we still back each other up, we still support each other. If we didn't have the right environment to do that we'd be in little silos getting on with what we needed to do because it's our job, rather than because we care about it and mind that we do things well.

02M1U

... working closely together with other people, nurses, dieticians, podiatrists and so on, and other medical colleagues. I suppose it's a sense of being part of a team is nice. And I think that's nice, so you got from primary care from secondary care people from, who are medically qualified who are not medically qualified, educationalists, non-educationalists. Those in that sense working with, being part of a team is nice.

06F3U

And perhaps then there's more external factors, in that, although I guess I'm a "university type", I'm a clinician and I'm employed by the NHS, and that's where the vast majority of my life is. So it's having, it's knowing how to network, or perhaps even seeing yourself in that type of university role, and making links with say the philosophy department, or theology, or whatever it might be, law department...

12M8H

Dislikes

Inertia

There seemed to be a difference of opinion as to whether it was the system, the institution or the individuals who were the cause of what several participants felt was the inertia in the system. It is important to reflect, however, that for some (see above) the flexibility to make changes was one of the factors that some participants liked about the University.

...there is an inertia in the system. It's very hard to change systems here, but that may be the same everywhere.

07M4U

I think at times the University could be more innovative and more opportunistic in the environment it finds itself in. And I suppose sometimes, at times you see that happening, but at other times it can be very process heavy and not as visionary as I would, at times, like it to be.

14M9H

People who can't stand change, people who can't believe that you won't make change, those who really want change and people want to make great barriers to it because there they don't want something to disturb them or what have you.

11M7U

Poor communication

This was phrased in two ways – some participants felt that they weren't informed about their place in the whole, and that this could be improved through communication. The other view was that there was communication, but not in the sense that it conveyed what was needed or expected with any particular clarity.

... it would be nice if we kind of, we have very specified, you know communication about what exactly the timetable is like and how we could accommodate...

09F4U

The least, certainly, and this is historical, really a lack of clarity, in terms of, and I certainly explored this with my new appointment at [identifier removed] with colleagues. If you actually ask them what is the curriculum, how is the curriculum delivered, they actually don't know. What they know is what they do. So they might know that they get CP2, but if I asked about if they know about the spirals, the pillars of the curriculum... then you draw a blank. With the vast majority of clinical colleagues. So I think that is the least attractive thing really.

08M5H

Competition

For one of the participants, the competitive edge led to the experience of the University being a cold and unfeeling place. There was a recognition that it was a widespread phenomenon, but that the University was more hostile than the NHS.

I think that there is a slightly cold attitude. They can be quite punitive places. I think partially because of the intellectualism, which can be not linked with humanity and emotionality. Perhaps a more cultivated emotionality. It's quite a cold place, quite a competitive place... Where somehow, if I can produce more than I'm somehow cleverer than you, somehow better than you. And lose that concern for individuals. And all organisations do it, and I think the NHS unfortunately is going in that direction. But I used to find that more of a stark difference than I do now.

12M8H

Red-tapeism

One, relatively junior participant, linked the competitive edge with being obstructed in what she wished to achieve by zealous use of red tape and committee structures.

It is a competitive environment, I mean, hey Ho but that's how it is. I've come all this way by competing. So, frustrations - I think fundamentally it's red tape-ism...

09F4U

Engagement

This study focuses on the factors that participants felt made it more congenial to be involved with teaching medical students (the drivers or benefits), and those that they felt were barriers to being involved. There were also some factors that were both barriers and drivers, depending on the particular context.

| Drivers | Both | Barriers |
|--|--|--|
| <ul style="list-style-type: none">• students• enjoyment• role model• making things better• seeing progress | <ul style="list-style-type: none">• colleagues• variety | <ul style="list-style-type: none">• logistics• lack of...<ul style="list-style-type: none">• recognition• clarity• training• support• resources |

Figure 21 The major factors that influence engagement with undergraduate medical students.

Drivers

Students and enjoyment

The main drivers to become and remain involved with educating undergraduate medical students are the students themselves.

... they bring very challenging and interesting different perspectives... because they are quite fresh to the whole area. So I think there's lots of elements, intellectual, but also emotional and relationships. Because obviously they are very nice, intelligent people to meet with and to spend a couple of hours with them is always pleasant I would say.

12M8H

For this participant there are two elements to that enjoyment; the interpersonal and the intellectual challenge. He felt very strongly that this contained within it great responsibility for the teacher, to help the students meet their full potential.

We have the cream of society in many ways, and how we actually nurture and develop them and give them opportunities or give them opportunities to develop that great ability and creativity ... all sorts of positive things. And going perhaps beyond the more mundane technical aspects into how you actually really engage with this group of very able, high potential, group of people in such a way that they start to fulfill their potential more quickly than they would otherwise.

12M8H

This does, however, for several colleagues make involvement with the education of undergraduate medical students more enjoyable.

Why do I teach? Because I enjoy it, because I can see it helping the students

02M1U

The buzz for me, I think, is the contact with the students that keeps me on my toes, and keeps me stimulated, and every so often I just think "Ah, I was a bit full of myself on that one and I don't really know the answer..."

04M2U

If you've got a fixed trained environment they don't ask questions. So you've got three or four consultants, some staff grade doctors, technicians and things like that you just get on with the job. It's not as interesting. But if you've got to explain stuff and introduce people to stuff or something then occasionally you get a bright spark who says, "Why is that?" And so you say to yourself "Why is that?" ...

13F5H

The previous two quotes highlight something that resonates with most of us who are involved in teaching, which is that it exposes the boundaries and uncertainties of our own knowledge. This is a two edged sword, and will be returned to later.

For those who are comfortable with recognizing the limits of their own knowledge, student contact can be highly rewarding, and can even be the most rewarding part of a difficult week.

... the best part of the week that is going horrible may be to facilitate a PBL group ... if I get in there, sit down, sometimes I think “thank goodness for that” for the 2 1/2 hours or whatever I'm focused on them rather than all the other rubbishy stuff that can be going on outside.

01F1U

Role model

There was a clear recognition of the responsibilities of being, or being seen as, a role model – which, for most participants, implied, or required, that one had previously been a medical student,

I think the personal level it is actually being, I guess, a role model. I remember having role models when I was a medical student. I think part of the privilege of being a consultant is being a role model, you want students to say, it's very good for your own ego, someone's followed that career because they've met me earlier on and luckily I've had a number of people who have clearly done that and that's so, that's lovely. So role model is part of it.

02M1U

Again, this concept has negative as well as positive aspect, as implied in the following excerpts, which were both made in the context of wider discussions about the frustrations experienced when working with some colleagues.

Because there is no [one] role model, there are an awful lot of role models, some good some bad, and they [*the students*] need to see where they fit in

11M7U

... I do feel we need to think about what we're preparing for, what we want them to be, and how they'll perceive others in terms of role models as educators, doctors whatever, scientists, yeah.

01F1U

Previous experience of being a medical student highlighted to several participants the importance of choosing to be the right sort of role model.

I do enjoy it [*being a role model*], it's great, because I was inspired by good teachers, but I also know my life was made difficult by bad teachers. And I don't want to be known as a bad teacher and I don't want to be a bad teacher

because you can affect somebody's life and whether they take up surgery or not by being a bad teacher. Being a bad role model.

09F4U

It is a great responsibility to teach other people because you can influence them both positively and negatively. Often the negative is perhaps without realising.

12M8H

The role modeling turns into apprenticeship, when the participant recognizes that part of their role is to lead by example, and show students how to live and work as a clinical academic, balancing the various commitments that they face.

Well, there's a simplistic kind of apprenticeship aspect to it because, as a clinical academic, most of my time is spent in hospital seeing patients, and working in a teaching hospital in an environment where the students are around to learn. So, learn from you. And I suppose my main role, I can say is being somebody who is there and is leading by example, having people attached you on placements, on the wards, Ward teaching, SAMP students, and there's that sort of simple clinical teaching aspect to it.

03F2U

This was perceived as a high calling, going beyond the transmission of knowledge and skills. One of my most senior participants drew the ideas together very eloquently.

Well, I do like to be thought of as an exemplar. In the sense that you can have an enjoyable career in medicine that combines research, clinical practice and teaching. I do firmly believe, and I'm very proud this medical school has done this, that we brought professionalism back in. To me, the concept that you have different specialists having particularly different skills was wrong. I think the whole role of professionalism embodies a much wider thing than that. I think it embodies... what I feel is... that you've got to have this ability to define trust with what you're dealing with. Now a good tradesman does that. But it is this ability to interface with not just the patient, but ... the society that you're dealing with, the family...

11M7U

Making things better

Returning briefly to the idea that one's experience as a medical student shapes the way that one enacts the business of being a clinical academic. Several participants reflected on the role models they had observed in their past undergraduate career

(see above), but one participant in particular highlighted the importance of making things better for the current and future generations of medical students. The first quote refers to focus on individual students, the second on the system.

a lot of what I might feel about the way I feel it should be for the students is very much ingrained from having been a medical student here in a very different curriculum. I was always feeling that, if ever I was in that position I would do it a different way. Because of the way you get treated, you remember the good ways and the bad ways and part of that is about “don't forget what it feels like to be a first-year medical student and to be completely at sea”.

01F1U

I think for somebody like myself who has seen changes for one way and the other way and back again, I think in actual fact to look back again and see well which aspects of these, perhaps, are best and how can we take things forward change things, move things and make things different. But in a positive way.

03F2U

Seeing progress

One of the rewards of being involved with teaching undergraduate medical students – particularly in being closely involved with teaching medical students, is the privilege of observing, and being able to drive, the learning of the students themselves.

I like seeing people who don't know anything progressing to become people who know stuff. And it is rewarding seeing people coming through passing exams, becoming F1s, F2s, and progressing through medical school. I find that very rewarding, challenging in some ways, particularly those that seem to be having a few more difficulties than most. But they can be the most rewarding because you can sit down with them have an objective, have a plan, and maybe go a little bit more “fine tooth comb” with them and meet the more frequently. Seeing them progress and achieve their potential is actually a really big thing.

10M6H

With this element of education, for some, comes a great responsibility, particularly when students are falling behind, or becoming confused.

I have a sense of responsibility; if I ever have a weak student I have a sense responsibility that I want to see that student improve for their own benefit. It's about being remedial and supportive.

11M7U

Potentially drivers or barriers

Colleagues

At their best, colleagues are the things that support and sustain senior clinical academics through what are often difficult and stressful times.

Well the things that make it easier are colleagues. Again, the reason I came to Liverpool is that I wasn't getting on with colleagues and they were making life very difficult. I accept that was partly me, but it wasn't entirely me. Having come here, the colleagues I work with here in the three major places I work, have just been superb, and I'm not just saying it for the interview, I really do mean it!

02M1U

I suppose that the best thing is that a lot of the people that you meet are driven by wanting to be the best, do the best, make a difference, are normally quite critical thinkers, are generally interesting people to work with, they've normally got energy, a bit of humour at the edges, and that kind gives you energy to work with that. So that's the kind of environment that makes you more creative, more able to do things.

14M9H

I think I ... I don't know whether I am going to be in the minority here again, but the thing is I have actually found very little apart from support whenever I've proposed anything related to education.

08M5H

The harder side of "colleagues" is those with whom one does not see eye to eye. Some of this will be raised in the following section on expectations and clarity of role, but one participant was less specific:

What helps "me" to be the "me" I'm supposed to be as far as I think it is? (*Interviewer nods*) okay. ... – What helps it is mostly the students. Because that's mostly the easier part of things. And what frustrates it is things to do with other staff! I don't mean all staff, I mean those in crucial activities or whatever, things can be frustrated by other people, which is not usually students.

01F1U

An example of that sort of issue is:

... what's happening to them outside, because, of course, all kinds of exposure within hidden curriculum and everything else about daft things that happened to them on a day-to-day basis that they report back, or them telling me how it wasn't like this in a previous group. Those things can make it then more

difficult for me then to facilitate within that group in that particular session. Because there are all kinds of other things about what the students are reporting to them from their sessions that are inconsistencies, or things that people have been saying to the plenaries... And I suppose that goes back to staff not necessarily following a particular philosophical line or not particularly thinking about why they're doing what they're doing or the effect that they may be having on students.

01F1U

Variety

One of the key benefits of pursuing a career that combines clinical work with educating medical students is the variety that it provides.

Okay, the best bit is having a so-called "portfolio career", where I'm not doing the same thing every day. But a big chunk of that is actually contact with younger people that are bright, and stimulating. It keeps me on my toes; I actually enjoy it 99 times out of 100. Whilst maintaining professional boundaries there are even occasional opportunities for appropriate social interaction and it's great fun. They are on the ball, they are respectful, they are well-behaved great kids who are going to make super doctors. So I enjoy the teaching and the benefit of the PBL session particularly is getting to know the students over a longer time.

04M2U

The variety comes with a price, however, since it means finding the balance between competing priorities.

I think the biggest frustration, what has been and probably will continue to be, there is an absolute requirement for us to perform with original research output and grant income. Thus it was and ever will be.

04M2U

The issue of balance, and the extent to which it is an institutional or personal responsibility will be discussed at the end of this chapter.

Barriers.

Although four participants didn't highlight any particular barriers to teaching, the remainder could clearly articulate those things that were, or had formerly been, barriers for themselves and their colleagues. All participants, however, had ideas about the ways in which the University could make it easier or more conducive to be involved with education.

Logistics

Some of the barriers are logistic, so, for instance the number of students that need teaching within constrained resources, including the number of patients within the health economy. To put this section into context, the number of medical students in Liverpool has doubled (to around 350 per cohort) in the past ten years, and although staffing levels have also risen, they have, with rare exceptions, been appointed on the basis of a commitment to research.

Because of the large number of students, and the limit on the number that can be accommodated in any one place at any particular time the timetable is very complex.

The course is vast, there are so many students, and trying to take people on, on different days, and do things on different days, and have student placements on different days, and in different years, ... that is an absolute nightmare.

06F3U

... there's the numbers game which we have in the medical school, you know the sheer numbers make it very hard to effectively organise a system like that.

07M4U

... number of students turning up, particularly at second year level we get 9 to 10 students turn up *en masse* and we can't accommodate all of them in one place. It's impossible in clinic to have three students in one room; it's intimidating for the patients...

10M6H

The large number of students, combined with the demise of the old "firm-based" structure, with its long shifts but close-knit team, means that it is becoming progressively harder to attend to the learning needs of individual students, and this is at a time when students are being empowered to voice their frustrations through the National Student Survey.

I would like to know the students better. Unfortunately I only get to know the naughty students better than the good students. When I used to be teaching in groups I used to get to know them but now I just had to get to know them know the miscreants. I enjoy the camaraderie. I remember when I was a student there was a fantastic sense of camaraderie because of the firm structure. And that seemed to go on it to junior doctors because we were working 120 hours a week that fantastic sense of being more than friends really mean more than more than colleagues and that's what I think that these students miss out on. People do know you, they come up to you on

degree-day and say hello, but I just don't know them as much as I would like to. Even the CCTs [*community clinical teachers*] say this but they do get to know them in the fourth year. The big difference is that year four in Liverpool; I think have a much better experience. The students see them as helping them through finals... It would just be nice if it was somewhere like Lancaster who've just got 50 students... It would be brilliant just to get to know them.

06F3U

The way in which hospital trusts are regulated means that they are run with an increasingly rigid business model, and this has consequences for the involvement of clinicians in teaching

... within the system, both within the clinical NHS system and in the university system, the mechanism whereby the money that is in the system to educate the students follows the student is not evident to the people who were delivering education. Therefore the tensions have increased over the years, as often people who would enjoy and be passionate about teaching, would fit it into their working day. Their working day is now very closely managed, so there are no gaps for them to be doing this. So unless they can demonstrate that “this is part of my job role and this is an income stream that enables me to do it”. Then there is no space for them to do it. So we have people out there who would like to do some teaching, but can't because they don't have space to do it, whereas 10 or 20 years ago they could have, as part of their generic role, have incorporated it.

14M9H

The final element is effectively intractable – and will become more complex as the treatment of patients continues to move away from the tertiary hospital environment. The problem is simply the number of patients that are available for students to interact with.

The problem that we have is that we've got too many [*students*] for the population base. Too many kids for the well and the ill people on the patch which presents a problem for both teachers and finding people to ... to be taught on.

13F5H

Lack of recognition

There are two elements to “lack of recognition”. There is the general recognition of whether education is something that should be valued, and there is the recognition given to those who are involved in it. The former is the most insidious, of course, since if education is not valued then those who prosecute it are also not valued.

Barriers are going to be related to the perception of education being at a lower level of worth or whatever compared with mainstream research in University

01F1U

I don't think that teaching is valued in any way shape or form, certainly from my experience. And that is very disheartening ... for people who are trying to juggle all these things together, who are clinical academics.

03F2U

Well, things like your role not being actually explicit, acknowledged, rewarded, whatever.

01F1U

... how do clinicians of all specialties get recognised for the educational work, when they're being pressed so hard for research that they don't have the time at all but they're not given the kudos of teaching

02M1U

In this context, the perceived norms have an effect on those less committed to teaching.

... they do it as "I've got to go and teach" they don't do it with the passion that I've intimated to you. Why do I teach? Because I enjoy it, because I can see it helping the students. They don't do it for that reason. They do it because they've got to tick that box. Not because they want to do it.

02M1U

I know a lot of my colleagues, who are educational supervisors, that do see it as a tick box exercise. If you don't want to do it, don't do it. Don't put yourself up as an educational supervisor job if you're not going to be prepared to put the time needed into it. Be a clinical supervisor that's fine... Don't agree to do the educational supervision if you're not prepared to do it properly. And that just does take time.

10M6H

The other context, arguably feeds the former, which is that many of the student educational experiences need to be "ticked off" in the student's logbook. The requirement for students to have something ticked off leads to them seeking the tick, or the signature, rather than experiencing the education and this is very frustrating for those colleagues who are committed to teaching.

... although the number counting, the list of cases may well satisfy the GMC it does very little actually to make sure that they've had a good experience. If anything it's quite often counter-productive. You know, they won't go and see something because they've already seen it once and got it ticked off in the logbook.

05M3U

Lack of clarity

Most participants did not articulate “lack of clarity” as a disincentive to be involved in education, but almost all suggested that it was an area in which the university could improve (see later). The two colleagues below come from opposite poles of the clinical spectrum, and are both closely involved with their component of the medical curriculum.

I think sometimes the difficulties that I've had over the years is not quite knowing the extent of what we are doing, and how it intersects with the complexity of the University. An awful lot of time seems to be spent in just trying to get a roadmap, or an understanding of the structured context in which we work.

12M8H

... this is historical, really a lack of clarity, [*personal identifying statement removed*]. If you actually ask them what is the curriculum, how is the curriculum delivered, they actually don't know. What they know is what they do. So they might know that they get CP2, but if I asked about if they know about the spirals, the pillars of the curriculum... then you draw a blank. With the vast majority of clinical colleagues...

08M5H

Lack of training

This was one of the major aspects of what the University might do in the future, but one colleague highlighted it as a reason for a lack of involvement. Of those who participated as interviewees, three have formal training in education beyond the legal minimum required by the General Medical Council.

I think perhaps, although I'm interested in these areas, I don't actually have any formal training in these areas. As a confidence thing...

12M8H

First of all we're not trained teachers... that's a huge issue I think. Some of us like teaching, I'd like to think some of us are good at teaching, but there are plenty who neither like it nor good at it and yet may be required to do it. I think the lack of training in teaching; the lack of qualifications for teaching is an issue.

07M4U

Lack of support

Tied in with this issue is the business of the low expectations some people have of what the University should be doing.

Just makes me think how sad it is, that I don't think it is the University's job to support me in that respect. (... Pause...)

04M2U

Whether articulated in the questions related to “barriers” or to “what the University should do”, the following quote is representative of almost everyone’s feelings:

I think the University, the primary thing, is that it needs to, from higher levels, say that education is important.

03F2U

Support, however is also collegial, rather than simply institutional, and there is a clear feeling, even from people closely involved with the curriculum, that there is a lack of collegiality, which leads to people looking inward rather than outward.

I think an appreciation from the University is a very important thing. It's quite interesting that this is one of the few medical schools where there isn't a bond of allegiance between people...

08M5H

It would be nice if we all got on a bit better really. Like [*identifier removed*] and [*identifier removed*] we’re all in our silos and we don't really get cross-pollination of work or ideas or anything really. And I don't think there are very many people in the medical school either? I look at other medical schools and seem vast arrays of people, lots of different skills, loads of research, and we’re just completely tiny outfit, which can't be good. Because I'd think you do go slightly potty in your own little field. You do need to get out. And that's really what I've been trying to do by attending conferences and trying to do some research.

06F3U

Improvements

| leadership | communication | recognition |
|--|--|--|
| <ul style="list-style-type: none">• vision• collegiality• transparent resource | <ul style="list-style-type: none">• clarity• dialogue• context | <ul style="list-style-type: none">• career structure• training for education• reward |

Figure 22 Participants' views on the way forward

Leadership

Leadership was a key issue and was raised by 13 of the 14 participants. It is important to note that these interviews took place at a time that the leadership of the School was in transition, so any negative sense should not be taken to include the current incumbents. Some felt that leadership was, or had been, lacking, but several felt it was appropriate.

Leadership included clear planning and sensitivity to clinical pressures that were faced by the trusts and also the importance of making a seamless link between undergraduate and postgraduate medical education, but there was much more than those elements to the business of leadership. Management was highlighted in the sense of technical allocation of duties and resources and the delegation of responsibilities and power. Leadership *per se* was also seen as being concerned with vision, communication of that vision, fostering collegiality and helping people to ensure that they weren't engaged in firefighting all the time.

For some, leadership was felt to be something that would allow them to focus on what they felt they could do well, rather than deal with the day to day politics that they felt restricted them.

And also it would be nice if more people around and about did want to finish what they started rather than moving onto the next big idea that they had this morning, and other people then picking up the pieces. So a lot of that is about the politics of it and the mix of people who are appointed to do certain roles. And it doesn't help if you got mostly people wanting to have big ideas and then a small number of people running around to at least get some semblance at those ideas. If that makes sense.

01F1U

And then you kind of feel there that all you're doing is firefighting, and just managing to get through, rather than doing anything which is more constructive and allows you to take a bit of time to sit back and evaluate what's happening and how things may be should be moving better.

03F2U

Vision

The participants who mentioned leadership recognised that the University structure implies leadership at several levels. There was a clear sense that the medical school was “different” from the rest of the University.

What's the frustration? er... Being candid, I suppose we haven't had the sort of leadership in the medical school that actually had the vision to say, "in five years this is where I want to be". To do that by building on the knowledge, the strengths of the team who have done a very good job really, over the last 20 years. We haven't been good at pulling those people together and I hope the new head of School will do that more than in the past.....

02M1U

I don't think the University has a clear view about how we should do that [*provide a student support system*], and what's different between a medical student and an art student or geography student. So I don't think they have any clear vision there.

02M1U

Collegiality

One of the tensions felt by respondents was that each community perceived an injustice, in that the others were more favourably treated.

The Prof in my department rather delighted me, because he said this rather wonderful thing because when one of my clinical colleagues said, "you clinical academics, all you do all the day is sit and read the paper!" My professor said "no in the morning we just gaze out of the window, we save reading the paper until the afternoon". Because they think that's what you do all the time, if you're not physically there.

03F2U

One of the participants was reflecting on the way in which things had changed over the years, and harked back to a time when he felt there was more collegiality.

People were brought together for example the examiner's dinner and examiners meetings as well. At several stages during the year NHS staff who were inputting into teaching work interacting as colleagues and equals and appreciated for their input. Very little of that happens now; it's a matter of

man management really. It's not a matter of process, much, it's a matter of the people who run the curriculum being conscious of the needs to involve NHS staff not by beating with sticks by the chief executives over SIFT [Service Increment For Teaching] but by involving them as friends and colleagues. It's with some interaction, and friendship, and make them feel part of the whole thing.

05M3U

Another participant expressed disappointment at working in what she felt was a small, fragmented school. She felt that there was very little collegiality, and hoped that the changes afoot would solve that problem

It would be nice if we all got on a bit better really. Like [*identifier removed*] and [*identifier removed*] we're all in our silos and we don't really get cross-pollination of work or ideas or anything really.

06F3U

Transparent resource

There were three elements to this section. The first point is a recognition that much of the money that goes to support research comes from the HEFCE (Higher Education Funding Council) money brought in by the medical students (and their fees). If more went into supporting medical education *per se*, then the student experience would improve.

And I think that the funding that comes with the students to educate them in medicine, I think, if spent on medical education could be quite transformative.

14M9H

And we fund enormous amounts of research which is of no value to medical students or the medical school, by the large amount of money we bring in which we don't get to run the medical school ... I think the other Institutes and elements within the Institutes have got to say "this is how we're spending this money, this medical school money" and if people don't turn up for their lectures, they don't turn up for the PBLs the Department is fined. And I think if we started taking serious money out of institutes which is medical school money and say sorry, Prof X if you don't come, this is your commitment for the year we giving your unit this amount of money for it if you don't turn up I'm afraid we won't give you money.

02M1U

The second element is that although a large amount of money is undoubtedly brought into the system for educational purposes, both University and NHS, it is not clear how it is actually spent.

... both within the clinical NHS system and in the university system, the mechanism whereby the money that is in the system to educate the students follows the student is not evident to the people who were delivering education.

14M9H

Because I think people are seeing the SIFT [Service Increment For Teaching] coming as possible income into their clinical streams. And obviously what we have to be careful about is that it is actually used for teaching, as opposed to just propping up the clinical service. ... I think we probably have to recognise that the direction of travel say with the SIFT money, we need to have much clearer agreements with the trusts about what it is that we're getting and that is to translate itself into job planning, so that we get a clearer understanding of what the clinicians will be doing.

12M8H

...these same people do with this whole accounting business. Now that just annoys me intensely... This was a problem would could have been solved and now it has to be solved. And it's hard. But in a sense it was insoluble in the interim years when we had vague structures, people are now getting into firmer structures and organisations which have clear responsibilities which they can say, "this is what the researchers *[earn]*... But also 40 million [*the HEFCE budget; actually £57m to the Institute of Learning and Teaching in 2012/13*] is this *[education]*". This chunk of money is also on this side and we have to justify it in hard-nosed business terms...

11M7U

Finally, there is a widespread perception that the University, and the NHS should be accountable for the monies they received from the public purse this also all links through to the ideas under the balance between clinical and teaching time.

I think certainly quite a lot of us who have been involved in teaching, who are clinicians, feel a little frustrated in the lack of support for teaching gets both perhaps from the trust point of view and from the viewpoint that I think the monies that come in for teaching have been very invisible

03F2U

Well, I suppose it is financial, because I think the SIFT money is going in, it's just that it's, I think the university has to recognise that the clinical academic may be providing teaching during clinical time

04M2U

One participant developed the theme of funding and expectations, explaining that most people he knew went beyond the strictly contractual requirements, which was

expected but not formally articulated as an expectation or rewarded.

Because I think what happens is that genuinely caring people will try and put in their own thing, which is not resourced which is not supported by the organisation. Yet you do it, you feel responsible, I don't think that is right for the organisation to put that burden on one actual individual and just presume that their good nature is going to take care of everything. I think that's wrong. I think there has to be an organisational view.

08M5H

Communication

Communication was highlighted as a theme by three participants who felt that the leadership of the Medical School needed to enter into a dialogue with clinical colleagues in order to present their vision, negotiate contributions, and ensure that everyone knew where they stood in the great scheme of things. One colleague highlighted the importance of dialogue rather than simple requirement, by this he meant that the University and the trusts should have some form of an understanding between them of the balance of priorities and the ways in which the priorities of the University could be met within the clinical commitment required by the trusts.

Although the participants with honorary university contracts felt that this was an issue of communication with the clinical world, participants with substantive university contracts felt it as acutely. Five participants felt that we needed clearer policies and around the employment and deployment of staff and very clear expectations of what is required from staff when they are involved in teaching medical students.

Clarity

There were two elements to "clarity". The first was about the academics role not being explicit and the other was about making sure that people understood why they were doing what they were doing.

...things like your role not being actually explicit ...to have clear policies that include the philosophical "why we're doing what we're doing" because that's what one of the frustrating bits about other people may be making things up as they go along or changing things or disregarding key bits of policy, because they don't revisit "but why are we doing what we're doing?"

01F1U

One of the tensions picked up by clinical academics in particular was due to the way in which clinical commitment and educational commitment have been balanced under the medical curriculum until now. So, clinical academics have been used to have the prime responsibility for teaching in the formal classroom-based teaching, as PBL facilitators for instance. This means that the clinicians with honorary University contracts very largely do the bedside teaching.

I think it is a very easy solution; the university simply has to have a policy that clinical academics teaching during clinical time is valid teaching. Once the medical school says that, great! Rather than just saying no, sorry, your unit has to provide exactly the same amount of PBL as biochemistry, physiology... Because it is part of the medical school.

04M2U

Since classroom teaching is, by and large, less visible within the hospital setting it does mean that clinicians with other University contracts often assume that clinical academics do effectively no teaching.

But what is paid by the University to the hospital for what they don't get is criminal. It really irritates me. You know kids turn up and there's just nothing, not even a message ... You're trying to teach them [*students*] to behave in a responsible way and they [*university clinical academics*] are not even doing it by example.

13F5H

One participant was very clear that it was the University's responsibility to emphasise that working in a teaching hospital implies that any clinician is likely to be involved in teaching.

...if you're appointing to [*identifier removed*] or [*identifier removed*] and you have an academic on the panel then you should be saying "hang on we are a teaching hospital let's get over it. We expect you to teach, we expect to give you feedback on your teaching and we expect you to give us something in return".

04M2U

This is not currently the case, nor is it highlighted at senior appointment panels.

You know I got [*identifying information removed*] years ago, a personal chair, and nobody asked, at my interview for that, nobody asked me anything about teaching, not a thing. 40 minutes in front of the pro-Vice Chancellor, and the great and the good and not a thing. The Dean did tell me that in discussions it was recognised that I was doing more than most in teaching, but you know

what I mean... I would like to see personal chairs awarded for prowess in teaching, take research out of the game

07M4U

Dialogue

One participant was very clear in his own mind about the importance of solutions being the result of a dialogue, rather than being imposed

I think the frustrating one still seems to me that there is still some disconnect between the academic world, and certainly I'm only talking about medical education part of it, and some of the delivery end which is at the NHS. I still think that there is scope for a more robust dialogue between the two organisations as to how this is actually going to take place.

08M5H

The same person had already been involved in a series of meetings that he found very helpful

I think there was a lot of dialogue about the obstacles and expectations. But I think like everyone else, it needs champions, it needs someone who's got a fairly wide recognition in terms of what they do, somebody who would have the ability to get people to listen, and also to understand both sides of the argument. And therefore is acceptable to both parties I think that certainly the beginning of the dialogue, to my mind it should be structured in that fashion.

08M5H

Other participants felt that they would settle for just being told.

...it would be nice if we kind of, we have very specified, you know communication about what exactly the timetable is like and how we could accommodate...

09F4U

Context

Even amongst those who are closely involved with the delivery of the curriculum, there has been a loss of the overview and the understanding of each component in the great scheme of things.

I think sometimes, the difficulty that I've had over the years is not quite knowing the extent of what we are doing, and how it intersects with the complexity of the University. An awful lot of time seems to be spent in just trying to get a roadmap, or an understanding of the structured context in which we work. Those are probably the difficulties...

12M8H

Another participant articulated the consequence of such uncertainty.

I think planning what you are going to do - we run various series of meetings and seminars at [identifier removed]. A lot of them I know, I've occasionally been guilty of this in the past, I know a lot of consultants just turn up and say "right, what do you want to talk about", "what don't you understand", "ask me questions..." And stuff like that. And there might be a place for that sort of thing, now and again, but really it's not quite snappy enough-there needs to be some sort of thought as to what we're trying to deliver.

07M4U

Recognition

There are two main elements to this. The most obvious one is that people like their activities to be acknowledged or rewarded. The second element is also important, and that is people like to have their skills and expertise acknowledged.

...things like your role not being actually explicit, acknowledged, rewarded, whatever... Recognition of the expertise that is involved in contributing at the level at which I suppose I contribute in this kind of curriculum. That would be good.

01F1U

Career structure

As was highlighted above, it is seen as important, from the appointment stage, to explain the level of commitment to teaching that is required, to monitor the teaching that takes place and make it part of the appraisal and revalidation process. The General Medical Council has already indicated that this will be required by all training organisations from July 2015 (General Medical Council, 2012).

In clinical terms by recording how much teaching they're doing, making that very much a part of their annual appraisal, their revalidation, and there are pretty straightforward ways of making that happen much more easily than we're currently doing. And it's basically building it around the clinical logbook that we have but it would require investment, although not an enormous amount.

02M1U

There is a perception amongst relatively junior colleagues that there is no current career path for those involved in education

I don't think that teaching is valued in any way shape or form, certainly from my experience. And that is very disheartening, and a lack of career path I think for people who are trying to juggle all these things together, who are clinical academics.

03F2U

In teaching, to some extent, maybe I don't see a specific advancement. Is teaching, as an academic - other than the satisfaction, I wonder where are the rewards...

09F4U

A very senior colleague echoes this

Teaching should be hugely upgraded so that people can see that actually being a teacher, predominantly a teacher, is not a second rate job actually, there's this guy 10 years older than me who's got a chair and lectures round the world and writes books and things like that... but I sense some frustration with them because they see no career pathway in front of them.

07M4U

There is a clear perception that, even for the more senior colleagues, giving up time to run curriculum committees examination boards and being involved in the administration program is far from recognized.

...the difficulty is in getting them to give up huge chunks of time to run curriculum committees and examination boards and so on. That is undoubtedly unrewarded and so is insufficiently rewarded in the University hierarchy, promotions and so on. And I found that really does need sorting. I think it ought to be just as easy to get promotion to professorial level on the basis of educational criteria as on research criteria provided there is excellence in what they're doing. That really is a big problem and I'm conscious of people whose mere renewal of their contract is in question, who have been absolutely outstanding beyond all reasonable expectation in terms of what they've delivered for the curriculum and for teaching and/or also extremely competent clinicians, but are not pressing all the right buttons on the research side. Those people should be valued for their contributions and not made to feel inadequate.

05M3U

Job plans

There was a perception amongst some of the participants that there was a "one size fits all" mentality over the appointment of clinical academics and the expectations laid upon them. It was seen that, rather than play to the strengths of individuals, the University required all academics to follow a research pathway, which is not seen as being the necessarily the best way forward. Job plans should reflect the needs of the institutions and the strengths of the appointees.

And I think also flexibility of job plans, so in other words somebody needs to be identifying the highflying academic who is pulling in millions of Welcome money, publishing in fantastic journals and is unhappy teaching anyway- saying "okay mate if you can help out with the exams that will be fine, and we won't expect much teaching from you." But on the other hand there will be others who will be identifiable fairly early on in their academic career as may

be much better to nurture into a predominantly teaching role and saying "okay we won't shout at you if you are not returnable in the next REF, but if you do this, do that do the other, then that's fine".

07M4U

This was articulated as the advisability of more flexible job plans which was also highlighted by participant 14M9H who saw the difficulty in clinicians with honorary university appointments teaching is being to do with their very restricted job plans.

So there is something about saying that it has to be part of people's job plans. People's job plans, previously, were so vague that, they were vague enough to incorporate. I suppose you had a job plan that was broad enough in scope that you were expected to incorporate education into it. So people wouldn't be saying "why are you doing that, you shouldn't be doing that", they were expecting you to do education within the scope of your work plan. Now, because the work plan is so specific, if you haven't actually got "education" in it you can't do it. So many people out there maybe would like to do it but can't, unless it is in that job plan. And that has changed, in 10 years it has changed dramatically.

14M9H

It follows that the whole issue of job plans on the balance of responsibility for individuals between the different elements of their tasks as important as something where the University could be in dialogue with the hospital trusts and also and provide some leadership and direction. This was certainly highlighted as being due to the lack of clarity amongst senior members of the trust and those that are engaged in the provision of clinical service. It is important to note using job plans were seen as a positive thing in that ensured clear expectations and the understanding that people would be monitored on their performance.

If you made it compulsory if you had set aside 1SPA [*specific programmed activity*] for education then "if you're not using it for education then you, do a clinic, mate". Then I think it might give it a bit more time, bit more effort. If you've got to do that in that time and you're going to be monitored that you're doing it, then that would be good

10M6H

Training for education

It has been suggested by more than one colleague that the University could recognise educational expertise or intent would be by encouraging people to take a postgraduate certificate in education.

Now, an idea that I did have a few years ago, and I think I sent up the chain of command, was that those that have done postgraduate certificates in

education, or who have made a the substantive commitment to teach whom I can think of many, whether they could have recognised teacher status within the University as opposed to this "honorary lecturer" status. If somehow they could be "recognised teacher" not necessarily so that they're on the payroll but something that gives them access to the University libraries, journals... And isn't a given either, it's not is something that just said and done that is... If they say I like teaching I'm good at teaching, and if they've done their postgraduate certificate in teaching and learning in the clinical environment Chester or Edge Hill or if they've done one of the University of Liverpool I can apply for recognised teacher status and then when I have my annual review with my NHS colleagues they will say "oh, gosh,"

04M2U

One participant saw the training pathway as central to the whole issue of recruitment, development and ultimately retention of staff.

I think it would be quite creative for a new consultant starting at the University Hospital to say well "here is a pathway for you to become a medical educator during your career". And I think increasingly people are thinking as medical careers not as, you know, "I am a gastroenterologist for life". It's "okay I am going to be spending this many years primarily doing this, and this many years primarily doing that". So I think you could be picking up young enthusiastic consultants who are interested in medical education, allowing them to progress to a higher level on a pathway of development, and having them as your educational leaders within the hospitals. It would then be very creative, because it would be a clear role, which people like. It's a clear role in the organisation that people want, rather than doing a bit of it, having some people who do a lot of it and having that leadership role, that would be good. And it would strengthen the communication and I think that's maybe a better way of thinking about it now than it is thinking that everybody can do everything. Because increasingly to be doing medical education you need high qualifications and diplomas and postgrad certificates and... And so be it, and that's fine, but you need to create an environment where people want to do that can do it and see that as a pathway and where it takes them. And I don't think that is clear. I know those pathways exist, but I don't know how a consultant who starting out, would say oh yes, I can get half a day a week to do my medical education career. I think that kind of idea and language would be good. And I think to say to the University Hospital, we'd like 10 consultants a year into this program... They're quite happy to push people into leadership programmes, push them into management programs, because they are programs. So in the same way I think that for education, you should have an education program and then they would put people into that.

14M9H

Reward

Another way of demonstrating that the work to earn educators valued is to award individuals recognised teacher status.

...doing it with the NHS management so that the NHS management recognise the within their consultant body they have got recognised teachers and that that teacher is actually providing. So it is a two-way thing. The University recognising that the hospital can do it a hospital recognising that there are consultants are delivering it. And closing that triangle, because it is a triangle, so that the providers get the benefit of access to the University lecturers, access to the University library, online, the Managed Windows Environment, and the free tickets to Ness Gardens, and so on.... If we could give them something to say look we're here to teach we do a lot of teaching, your hits teach and a lot of teaching and we can't live without you, and you can't live without us. So can we make up and be friends. I don't think it will cost University very much, at all, to print off a few more of these cards and also just recognise them on a website as having satisfied the criteria of the University of Liverpool "the following are recognised as teachers of University of Liverpool in the School of clinical medicine", or something like that.

04M2U

I think from a faculty point of view you've got to make people feel valued. That includes making NHS people at all levels really, not just consultants feel valued when they input into teaching and mentoring students. I don't think the faculty has been as good as it could have been doing that and in fact it used to be much better say 20 years ago, when honorary lecturer status was given out in recognition of good input, and was respected.

05M3U

Agency

One of the elements that was not specifically included in the questions, but which was alluded to in the answers, was the concept of agency, which was expressed in more than one way. This will be returned to in the discussion, but it will be recalled from the literature review that it is an integral part of Archer's reflexive imperative model and also relates to the power that people feel they have to enact their beliefs. Agency is part of being an academic - being able to be flexible and constructive with your thought processes.

Because there is the flexibility of thought and practice and most times you are able to use your thought processes in a constructive way, and as a by-product, yes, there is some satisfaction of using your intellect to do a good job

01F1U

It was recognised by several participants that within an academic career that there were tremendous opportunities to make a difference.

So, I've really enjoyed it, I just had a 360 done across the hospital, and people have been very kind. Most comments have been about "he's very good at involving students... getting people talking about it... educating people" all of that comes through my 360 which is lovely to be able to read. And I think I attribute that mostly to the fact that I've been given enormous opportunities here and been able to develop them.

02M1U

I've changed what I've done over the years. It's partly going with the flow, is partly go with opportunities and so on. So when I started as a consultant, I was a very busy clinician, I was busy with research and I was busy as a teacher. And I was doing no administration. I gradually took on a bit of administration, initially without dropping anything but just became busy - almost to exploding point and then I was able, thanks to very helpful colleagues, to start clipping away bits of the clinical workload. So I became more focused and that also coincided with the general trend in the hospital and even in the country.

05M3U

I wouldn't like to be a [identifier removed]. I wouldn't like somebody telling me when I was going to do my ward round. I can pretty well run my [identifier removed] as I choose. I have a lot of freedom, and power.

06F3U

Some colleagues felt that they would be more effective if they were given more freedom, since they didn't feel able to exercise their agency.

I personally think my time would be better, as a specialist, doing occasional but regular short focused teaching in my clinical environment, during my normal clinical job and when I'm in the University doing my research. And then I would be as productive as I am now. But if during the precious 50% of my time is nominally clinical, I'm not teaching in a focused manner, I think that's where I should be teaching, then asking me to teach my 50% academic time is crippling me academically.

04M2U

It would be nice if there was a bit of control over what you could choose to do, I don't know whether that is possible in the University, whether you could choose some PBL, say these of the PBL is going if anyone wants to they could

offer themselves, and I'm sure I would jump at anything [*identifier removed*].
Rather than at the moment I feel a lack of control.

09F4U

Underlining the importance of Margaret Archer's reflexive imperative, several colleagues highlighted the fact that they were able to control the way they spend their time – and attributed their success and seniority to that.

I very much subdivide my week.

10M6H

It's because I'm able to partition... I was inculcated with a sense of responsibility to make sure I was achieving the different things I said I was going to achieve. So I don't have a priority concept, except that I know something has to be done. So I was never getting things in just in time, the last minute...

11M7U

I think you have to try and structure [*your*] week and actually put time, even if things seem relatively quiet, put time aside for the various different responsibilities that you might have.

12M8H

Well, I have a diary, which has so many hours in a day... And I suppose in some ways there are some elements that are always in that diary and some elements that flex. And I guess it's about weighing up the importance of attending or being part, of attending meetings or being part of various initiatives and weighing up the balance of that and what I need to do what I can delegate to other people to do around me that I don't need to do. I suppose I prioritise things that develop the clinical service, learning and teaching, and research and development. So I keep an eye on those three domains and see what the opportunities are, and see whether we can convert them into realities.

14M9H

Discussion

The research question in this dissertation is

“What are the factors that frustrate or facilitate clinical academics engaging with teaching undergraduate medical students?”

The question, though, is not separable from the theoretical underpinning that informed the conduct of the study, the methods used, or the context. My basic premise follows the reasoned action approach (Fishbein & Ajzen, 2010); so people act in ways governed by the things they believe, what they perceive as the norm, and what they perceive as socially desirable. These summate to shape their intentions. Their intentions are frustrated or facilitated by external controls, which lead to, or prevent their behaviour.

The Reasoned action approach and Agency

I have taught in a healthcare background for many years, so am accustomed to use the reasoned action approach, summarised in Figure 23 (Fishbein & Ajzen, 2010). To take two hypothetical examples, one related to the everyday world, one related to the research question itself.

An individual might wish to go to the gym and participate in some activity that would give long-term health benefits. They might believe that exercising on a treadmill is good for them, and this would give them a positive attitude towards the behaviour. They might be in a family or other social situation where such activity is regarded as being normal and an accepted part of the daily routine (norm, this thesis p.32). In the diagram below (Figure 23) the first two rows are fulfilled in such a way as to lead to positive intention to go to the gym. They may however have childcare or other personal responsibilities which make them reluctant to leave the home (perceived behavioural control, this thesis p.33), or the phone may ring, and they might be delayed in leaving the house (actual control, this thesis p.29). In those cases their

intention would be frustrated. Alternatively, their partner might encourage them to go to the gym, and answer the phone for them, in which case their intention would lead to the behaviour. A key element in defining the outcome is the strength with which they felt could resist the pressure not to go. This is their agency.

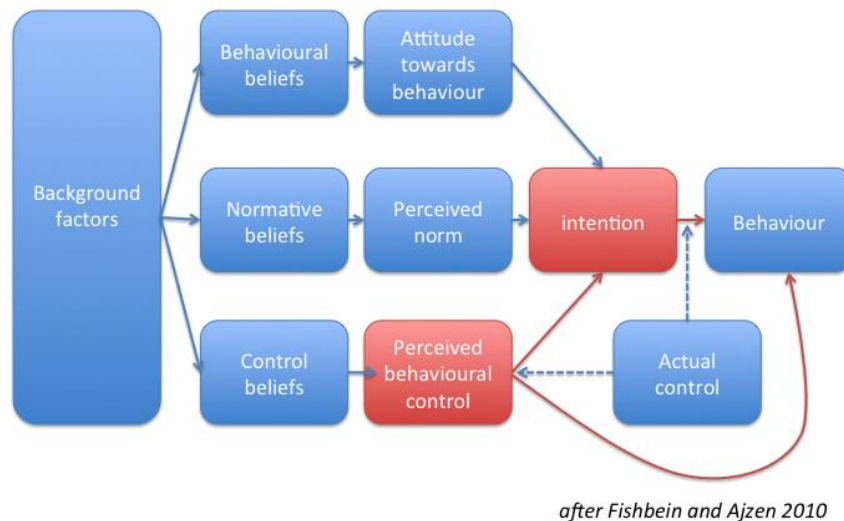


Figure 23 copy of the reasoned action approach diagram, used in chapter 2, showing the location of agency

Agency (Archer, 2000), in this context is a combination of intention (the extent to which the attitudes and the norms promoted (or inhibited) the intention), the perceived behavioural control and, crucially, the step between intention and behaviour (coloured red in the figure).

In the context of a senior clinician considering teaching medical students, they might have a belief in the importance of teaching, and therefore intend to teach, but they might find that their colleagues did not feel the same way (perceived norm, this thesis p.32), their line manager might have other pressing priorities for them (perceived behavioural control, this thesis p.33), or they may be faced with a very sick patient in need of attention (actual control, this thesis p. 29, Figure 23 above). In any of these events they are unable to exercise their agency (this thesis p.40), and perform their intended behaviour.

One of the potential avenues for this study was to use the reasoned action approach in its entirety, but that would have been a much larger undertaking. Instead I have chosen to focus on the concept of agency for two reasons. The first is that we do not know enough, yet, about the underlying behavioural, normative and control beliefs that govern attitudes and perceptions, although this is clearly an avenue for further fruitful study. The second reason is that by employing Margaret Archer's concept of agency (Archer, 2000, 2003, 2007, 2012) I am able to consider the interaction between the agent, and the structure in which they labour, which is the point at which I believe we can intervene to improve the outcome.

Archer considers that culture and structure can act together to prevent or to facilitate change. A morphostatic cycle is where the dominant culture ensures a social structure that maintains its dominance (a dictatorship or colonial rule for instance) and thereby prevents change. A morphogenesis cycle, in contrast, is one where, in the cultural domain, socio-cultural interaction favours cultural elaboration, and in the structural domain, social interaction promotes structural elaboration. If cultural elaboration and structural elaboration are mutually reinforcing they produce change (see Figure 11 in the literature review (Archer, 2000)). In terms of the model it is important that conditioning precedes interaction, which results in elaboration. This is the point at which we need to remember that the morphogenesis cycle applies to the system, and to the individual agents within it. To take an example from this field of study: If we were to identify those elements that prevented colleagues from teaching medical students, then it should be possible to make organizational or cultural changes that would mutually reinforce the changes needed to result in greater involvement of clinical colleagues in teaching medical students. There are two key issues. The first is that both cultural and social domains would need perturbing; the second is that we would need to ensure the agency of those involved in the desired behaviour (teaching).

Agency and reflexivity

For an individual, agency is mediated by their internal conversation (Archer, 2003), where they reflect upon what has been, consider their alternatives and plan what they will do next. There is, of course, a range of possible outcomes. Archer mentions four (refer back to Figure 9 in the literature review), but on the basis of both logic and this study I would add to a fifth, and arguably a sixth. There is an issue to consider and that is the extent to which reflexivity is a trait, and reasonably constant and predictable for an individual. On the basis of Archer's work (Archer, 2007), individuals seem to have general outlooks that align with their reflexivity. The participants in this study, however, seemed to flex between different types of reflexivity according to the context in which they found themselves.

At one end of the continuum, Archer (2012) places "fractured reflexivity" – which is where the individual feels disempowered, or is otherwise unable to provide a focused plan. In Archer's view, based on her research, this promotes anxiety, which leads to inaction. I did not identify any of these in my study, hardly surprising given the day-to-day exigencies of medical practice, although it was identifiable in discussions about professional identity, particularly the way that restructuring the medical school had abolished departmental boundaries.

So it seems like the disciplinary identity has been fractured, and that makes it really difficult if you weren't, if you're not based only in the research only department. So where you are and who you are and what your identity is within that reorganisation also clashes with reorganisations going on outside, and particularly for this discipline it does.

01F1U

The next category is "communicative reflexivity" where the individual needs reassurance, or guidance, before they can act on their ideas. This might be the case for someone early in his or her medical career, but again was not evident in my sample of participants. They did recognise it in others, however:

...but put her in a clinical situation she starts getting self-doubt. And so its "can I just ask you about this patient..." "Yes of course you can..." So she relates the history... What do you think you should do? And she tells me, and so why do you think you should do that? And she says this this and this and you say exactly right and she'll go and do it. and it's reaffirming to her that

she knows what she's doing, and it was difficult with her, because I know she can do it, but she just didn't have that self-confidence.

10M6H

"Autonomous reflexivity" is where the internal conversations lead directly to action without referral to others or the past. Although some of the participants in my study (and I suppose most of us) have acted as autonomous reflexives in the past, no-one provided evidence of it concerning themselves, although one alluded to it in a veiled way concerning a particular colleague:

People just wanting to get things done, not necessarily in the right way.
People saying things to you like "the problem is you just want to do things right".

01F1U

Most of my participants belonged to Archer's fourth category of "Meta reflexivity" which is where they critically evaluate the past, and develop ideas and approaches that they will apply and test in the future.

...we have a responsibility to look at it all. I think for somebody like myself who has seen changes for one way and the other way and back again, I think in actual fact to look back again and see, well, which aspects of these, perhaps, are best and how can we take things forward change things, move things and make things different. But in a positive way. I think that somebody like myself has got responsibility for something like that as well to do with day-to-day organisation of things.

03F2U

Some of my participants, however, appeared not to exercise reflexivity at all, or alternatively mull something over but abrogate responsibility and do nothing about it. Clearly, in an absence of action it is difficult to disentangle the two preceding states, but in the absence of expressed anxiety it could not be fractured reflexivity. This is not necessarily surprising, since the research that Archer was conducting in Coventry was about social mobility (Archer, 2007), which is likely to promote active reflexivity.

On the basis of this study I propose a fifth state of reflexivity that is "passive reflexivity", and a sixth that is "abrogated reflexivity".

Communicative reflexivity

Internal conversations need to be confirmed and completed by others before they lead to action

Autonomous reflexivity

Internal conversations are self-contained, leading directly to action

Meta reflexivity

Internal conversations critically evaluate previous inner dialogues and critical about effective action in society.

Fractured reflexivity

Internal conversations cannot lead to purposeful courses of action, but intensified personal distress and disorientation resulting in expressive action

Passive reflexivity

The internal conversation either doesn't happen, or is ignored because of satisfaction with the status quo.

Abrogated reflexivity

Responsibility for a situation, or considering its implications is left to others.

Figure 24 The full range of reflexivity (items 1-4 after Archer 2007)

Passive reflexivity can be exemplified when someone is content with the status quo, because they enjoy what it brings them. It may be expressed as the love of teaching (Davies et al., 2011), joy (Gerrity et al., 1997) or enjoyment (Stark, 2003). It was expressed by some colleagues who were clearly meta-reflexives in my study (02M1U), but also by a colleague who is not (12M8H).

Don't know really because I haven't got a big downer on it or anything.
(Pause) I don't tend go around gnashing my teeth about matters of the main organisation or "university does this that or the other".

01F1U

I had hoped that I'll be able to do something a bit more than that, but in practice I haven't, as yet!

12M8H

Abrogated reflexivity may be a type of fractured reflexivity without the angst, but is exemplified by those participants in my study who chose not to act in response to their experiences – blaming the system and moving on.

It is a competitive environment, I mean, Hey Ho, but that's how it is.

09F4U

In my participants, abrogative reflexivity was commonly ascribed to others, in terms of the way they deal with systems and people.

But at least as often, and I suspect rather more often, it's that the consultants don't feel particularly inclined to get involved because they don't feel likely to be valued if they did, and they may use, as an excuse for lack of involvement the pressures of their clinical work. But if they really wanted to be involved they could probably get round that.

05M3U

And if there's one thing I'm dissatisfied with I think it's that people don't always, whether it's the PBL or anything else, they don't say just pull your socks up..

11M7U

The two potential new types of reflexivity are necessarily a tentative proposition, and further research will be needed to see the extent to which they contribute to theory, focusing on supporting or refuting this claim.

Context

Before we consider the issues identified in this study, and the way in which we can make changes to the cultural and structural domains, we need to consider the context in which we are operating. There are two components to consider here – the structure – which is, in part, the medical school, and the culture, which stems from the people associated with teaching the medical students.

Structure

The purpose and place of the Medical School has changed over the years. The core business of the medical school when it was formed in 1838 by Richard Formby (Gray, 2003) was, as now, to educate and train doctors to serve the local people. The original faculty of the medical school were local practitioners, who gathered together to ensure that their apprentices had the necessary skills and knowledge to pass the

qualifying examinations of the Apothecaries Society or the conjoint Royal Colleges. The Medical School became incorporated into the Victoria University College in the 1870's and into the University of Liverpool on its foundation in 1903 (Kelly, 1981) awarding University of Liverpool degrees with the status of primary medical qualification. From then on the running of the school became professionalised and incorporated into the Faculty of Medicine. The Deans of the Faculty were invariably senior members of the local medical and surgical community, and as the hospitals grew and developed, they were usually the senior executives of one or more of those hospitals, so there was a ready supply of placements for the students, and aspiring academic clinicians to ensure that they were educated. Although research was considered important, it was pursued on the side, in one's spare time away from the formal business of clinical service provision and teaching. In the post war period in the middle of the last century, strengths in research in particular areas began to develop, and investment was made in the research enterprise, with marked success, and the stature of the medical school grew, as did the size of its estate, the number of staff it attracted and the number of students it trained. The management model, however, had developed little from the days when the local medical community ran it. When the Duncan Building and the new medical School were completed in the 1960s, a senior University academic held the post of Dean on three yearly rotations, governing between 128 and 130 departments, which represented the various specialties and sub-specialties serving the local health economy. The first executive Dean, who was an external appointment, was appointed in 2001, and was tasked with re-organising the Medical School, which, even then, was the largest Faculty in the University.

The status of the "Medical School" has changed markedly since 2008. For all of the participants in this study, "Medical School" was synonymous with "University". There was little or no concept of the higher University structures. For those of us involved at central University level, this produces wry amusement, since, in the current structure, the School of Medicine is a level 1 department, without direct representation on the Faculty Management Team.

Students invariably refer to the School of medicine as “Faculty”, and yet the Faculty of Medicine was disbanded in 2008 when the Faculty of Health and Life Sciences was formed, as part of the University’s Strategic plan. The, then, Dean of Medicine became Dean of the new Faculty, and five Research Institutes were formed: Ageing and Chronic Disease, Infection and Global Health, Integrative Biology, Psychology Health and Society, and Translational Medicine. The role of those research institutes was to allow free flow and collaboration of research across the former departmental boundaries to ensure success in the Research Assessment Exercise, now the Research Excellence Framework.

A sixth Institute, the Institute for Learning and Teaching, was formed in 2010 to govern the teaching element of the programme comprising the Schools of Medicine, Dentistry, Health Sciences, Veterinary Medicine, Psychology and Life Sciences. It has notional control of the budget that comes in from the Higher Education Funding Council (HEFCE) to educate our students (around £57 million in 2012/13). It has, however, proved an almost insurmountable task to align the HEFCE budget with the teaching needs, since many HEFCE funded full time equivalent staff reside in the Research Institutes and are pursuing the University’s research agenda. The School of Medicine has an allocation of 80FTEs (Full time equivalents) distributed across academic and professional services staff. It has in the order of 1800 undergraduate and postgraduate students. It follows from this that most of the teaching of students falls to people not directly employed by the School of Medicine.

Before 2008, the Dean of the Faculty of Medicine was responsible for all academic, clinical and professional services staff in the Faculty, and was a member of all of the hospital boards. In organisational terms, the head of the school of medicine now is equivalent to the head of the Human Anatomy Resource Centre, and is responsible only for ensuring the running of the undergraduate medical programme. Whereas, in former times, the Dean was able to allocate staff to meet the current priorities, the head of the medical school has no power to direct or deploy the staff in the research institutes.

The reorganization had structural and organisational consequences for the school of medicine, but it also had consequences for those involved in the different specialties:

So it seems like the disciplinary identity has been fractured, and that makes it really difficult if you weren't, if you're not based only in the research only department. So where you are, and who you are, and what your identity is within, that reorganisation also clashes with reorganisations going on outside...

01F1U

This, whether through an impotent fractured reflexivity or a dismissive abrogated reflexivity, has led some to a sense of alienation from the school. In terms of the reasoned action approach, it has meant a shifting from the established norm referents, and a lack of certainty concerning the identity of the new norm referents (this thesis p.32). Once, the chief norm referent in the medical school was the Dean; a respected senior colleague who would, in a few years be back among the rank and file. Now the Dean is physically remote from the Faculty, is not going to return to work alongside his colleagues, and the cohesion that was once provided by the departments has been deconstructed in forming much larger units. The consequences seem to be a diminished the sense of community and a disinclination to be more involved in the educational endeavour of the medical school.

Those who felt able to comment about the University as an entity felt disconnected from it.

Just makes me think how sad it is, that I don't think is the University's job to support me

04M2U

For most participants the University was not something that concerned them in their day-to-day life. As mentioned above, it is difficult to determine whether this is passive reflexivity, or abrogated reflexivity. Is it because of a lack of interest or a feeling of powerlessness? It is not the painful "fractured reflexivity".

... I haven't got a big downer on it or anything. (Pause) I don't tend go around gnashing my teeth about matters of the main organisation or "university does this that or the other".

01F1U

On the one hand the role of the medical school has not changed, and that is:

... to produce caring, competent graduates, fit for practice as foundation year one doctors with the capacity to develop beyond that for specialty practice.

01F1U

All of the clinicians with honorary University contracts, and several of the University clinical academics responded in this way, with varying degrees of sophistication (see the results chapter). On the other hand there was, among most of the University academics, the recognition that that is not the whole story:

In its entirety the purpose of the medical school is to do a high-quality research, pushing back the frontiers and boundaries of medicine both in terms of basic science and in clinical medicine, but also to teach medical students to become functioning doctors.

07M4U

I feel that it is significant, given my earlier point about salient views, that the research agenda was addressed before the teaching agenda. It has a strong positive slant as well, as identified by one of the participants who is a very senior member of the hospital community.

I don't know the formal legal requirements of the medical school. But it would seem to me that part of the medical school role is also to create an environment to foster research and development within medicine. In order to progress the science and art of medicine, we need an academic infrastructure to enable that to happen, and that research and development goes alongside the learning and teaching, and so the two should be synergistic and should be compatible.

14M9H

Culture

The clinical colleagues I interviewed fall into two distinct categories. University academics have a formal contract with the University and are also employed (in this study) as consultants within the local health economy. Typically they have a 50:50 University/Clinical commitment built into their job plans. These colleagues are usually referred to as clinical academics (UK), or academic clinician educators (in the US and Australia). For these colleagues the tension is that the University expects them to spend their "University time" in research, and their clinical time teaching. In

contrast, the Chief executives of the NHS Trusts expect that they will spend all of their clinical time providing a clinical service, and restrict their teaching to University hours.

... So that's a real problem, trying to do what the University wants, what the NHS wants, because it is virtually impossible in terms of the time you have available. So that's a problem in terms of demands on your time.

07M4U

I personally think my time would be better, as a specialist, doing occasional but regular short focused teaching in my clinical environment, during my normal clinical job and when I'm in the University doing my research. And then I would be as productive as I am now. But if during the precious 50% of my time that is nominally clinical, I'm not teaching in a focused manner, I think that's where I should be teaching, then asking me to teach [in] my 50% academic time is crippling me academically.

04M2U

With the University reputation being critically dependent on research productivity and continued membership of the Russell Group, it is understandable that research is seen as a priority. However, the sinking of the University in the National Student Survey-related league tables damages recruitment and what is ultimately a much greater income. It has been argued elsewhere (Gerrity et al., 1997), but also here, see below, that some form of specialization might help bridge the dilemma.

... there will be others who will be identifiable fairly early on in their academic career as may be much better to nurture into a predominantly teaching role and saying "okay we won't shout at you if you are not returnable in the next REF, but if you do this, do that do the other, then that's fine".

07M4U

The second category, "clinical teachers", have standard NHS contracts, and fit their teaching around their normal clinical activities. They have honorary University contracts because of their involvement in assessment of students, but their driving norm stems from their belief and motivation to do the best for the patient.

Well, you've got fixed clinical activities where there are a lot of outpatients coming by appointments, and they've got to be dealt with, and inpatients and so on, so you'd never set up a formal teaching session really when that was

going on. ... Because people like me are actually employed by the NHS to see patients. You see what I mean?

13F5H

The difficulty for the local health economy is that those with a standard hospital contract inevitably end up doing the lion's share of teaching undergraduate medical students particularly the teaching in a clinical environment. On the positive side for the local health economy, it does mean that there is a regular supply of junior doctors to provide cover and staffing into the future.

The tension between colleagues from each of the categories is usually good-natured, but very real:

What do you think about the contribution to teaching that the University clinical academics make?

I haven't noticed... They do have different pressure though ... I'm about to have lunch with X shortly and he'd say that's rubbish, they're just idle!

13F5H

A University clinical academic saw it differently:

... it's interesting that my clinical secretary booked my diary out, because she said "you don't do anything on Monday" meaning that I didn't have a clinic or a ward round whereas every other day of the week I've got clinics or whatever it is. And I said "well in actual fact my Monday is chock-a-block, I actually am at the University, and I'm doing this, this, this and this" but of course, I been booked out for a clinic because my "Mondays are free". The Prof in my department rather delighted me, because he said this rather wonderful thing because when one of my clinical colleagues said, "you clinical academics, all you do all the day is sit and read the paper!" My professor said "no in the morning we just gaze out of the window, we save reading the paper until the afternoon". Because they think that's what you do all the time, if you're not physically there.

03F2U

Another colleague had recently been subject to a very difficult conversation:

"... you're not part of our team. You're actually just here to provide one clinic and one theatre session just to meet the bare line in order that you can retain

your registration and your clinical credibility when you write a grant application.” And I think that's tragic...

04M2U

Those seven excerpts crystallise the culture that we have to deal with. There are multiple points of fracture and division, between research, teaching, and clinical service delivery, each of which is imperative for someone, and between University and non-University clinicians. In terms of structure, the University has the power to shift the balance between teaching and research, but no one has the power to alter clinical demand, or to mediate between University and non-University clinical academics. The “tipping point”(Gladwell, 2000) can only, therefore, be approached by a cultural change – and any subsequent structural change will be the result of agency.

The socio-cultural element

There are many things that the participants enjoyed about being associated with the University. Primarily, as was suggested by the studies cited in the literature review (for example Lochner et al., 2012), it was the contact with students

...it's fun to spend an hour with a group of really, exceptionally bright, interesting young people, who want to learn. I mean it's, it's every teacher's dream, that, to have students who are just there hanging on your every word. Who are actually going through similar things to what you went through, so you have a shared experience...

03F2U

Several also expressed pleasure at working in an academic environment for one or a combination of four reasons:

- It has always been their ambition to be an academic
- They find the medical school a haven of quiet
- They enjoy the prestige of being part of the Russell Group
- They find the medical school to be a creative environment,

For some being a clinical academic represents the culmination of a life's ambition:

I always wanted to be "academic". So it's that feeling that you're doing things the right way. It's not the intellectual challenge bit, it's using your intellect, I suppose. To do whatever it is you're doing, properly...

01F1U

One colleague felt able to articulate it as representing a haven from the business of a demanding clinical role:

The thing I like the best is the quiet and the peace. Because you can come here and this is more like a peaceful, structured world, where there's not a phone here... I think it's also a time for more intellectual or abstract thought I suppose.

12M8H

Some were very explicit about being part of a Russell Group University, with the prestige and benefits that brings:

I think the most attractive thing is the University itself. I think its reputation, its presence in the Russell group, and the potential of what can happen.

08M5H

Several saw the University as a place where creativity was unleashed, articulated most clearly by:

I suppose that the best thing is that a lot of the people that you meet are driven by wanting to be the best, do the best, make a difference, are normally quite critical thinkers, are generally interesting people to work with, they've normally got energy, a bit of humour at the edges, and that kind gives you energy to work with that. So that's the kind of environment that makes you more creative, more able to do things.

14M9H

There are, then, many perceived positive elements to being part of a University community. As mentioned at length in the results section these are counterbalanced by the pressures brought about by an ever-increasing workload, the inertia of the system, competition and poor communication. Despite that (as for clinical colleagues in other times and in other places (Hendry et al., 2005)), being in a medical school, and teaching undergraduate medical students was seen as being worthwhile, and one of life's good things – well worth committing time and energy to.

Okay, so, the best part of the week [that] is going horrible may be to facilitate a PBL group. No, that doesn't mean I want loads more PBL groups. It means my PBL group. If I get in there, sit down, [I] sometimes think thank goodness

for that for the 2 1/2 hours or whatever I'm focused on them rather than all the other rubbishy stuff that can be going on outside

01F1U

This leads to the discussion about the balance between the main factors are which help colleagues decide whether to devote time and energy to teaching undergraduates.

The answer to the research question

There are differences in emphasis between the participants in this study (Figure 25), and the findings from previous studies (Figure 4). These stem in part from the particular context of the study (in time, place, and in many instances, profession), but also from a recognition of the potential unleashed during a period of change.

All of the elements discussed in the literature review section apply (Figure 4). The barriers to teaching undergraduate medical students are balancing competing imperatives in the face of increasing workload, a sense of powerlessness, and frustration at a lack of reward and recognition. None of the participants in this study disclosed or described “stress”, but it is impossible to tell whether this was because it was not experienced, or because it was sufficiently part of life to be unremarkable. Here it is worth briefly considering the difference between a barrier and a constraint, and in critical realist terms, what the generative mechanism might be. The barrier is what is perceived by the participant - so finding the appropriate balance between teaching and service delivery. The constraint is the clinical workload, and the generative mechanisms behind that are the attitudes (and norms) which give primacy to either education or clinical care.

Crucially in this study, and in contrast with previous tacit understanding and the literature, time was only mentioned in the context of juggling between competing imperatives.

On the positive side of the balance all participants articulated intrinsic motivation, enjoyment at spending time with students, the pleasure of being challenged by students, and the pleasure and responsibility of being a role model.

Two elements were disclosed which add to the picture derived from the literature and these were collegiality and the pleasure of the variety and unpredictability that teaching undergraduate medical students bring. These can alter the balance of probabilities either way.

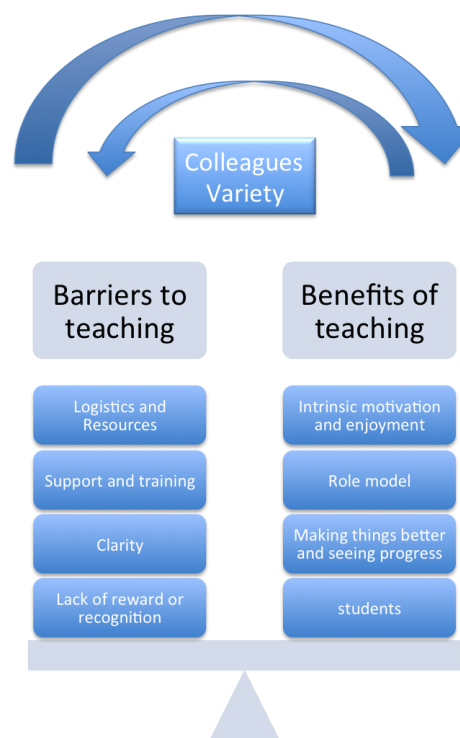


Figure 25 Summary of the barriers to, and benefits of, teaching undergraduate medical students

Variety is, of course, often seen as positive.

I tend have a short enough attention span that I like to do lots of different things,... the best bit is having a so-called "portfolio career", where I'm not doing the same thing every day.

04M2U

However, the unpredictability that is the flip side of variety can be stressful, especially when trying to balance the clinical demands faced by the participants. The factor that determines the outcome is the strength of the participant's belief in a particular course of action and the power of that belief to shape the action. In other words, the perceived behavioural control, modified in turn by the pervading norms,

the individual's attitude toward each behaviour, and the extent to which they feel they can exercise their agency.

... seeing the little fledglings that come in [*identifier removed*] that has to be done at lunchtime or after five, or whatever, do you know what I mean? When you're working full-time. Which isn't ideal...

13F5H

And so towards May time, a month or so before LOCAS we get a load of them turning up on a Wednesday afternoon looking at us and asking if they can sit in on clinic... Which we are happy so long as is only one or two of them at a time...

10M6H

I think we should be teaching our students to teach. Because, as soon as they become a junior doctor the first thing they are going to be asked to do is take over the registrar's teaching, because [the registrar]'s late running a clinic and because the consultant has asked him to organise the teaching, and will be asking them to sign logbooks.

04M2U

... comes in and says "Can I have a word?", sometimes it's easier to tell them what to do, because it's quicker than saying "What do you think you should do?". And sometimes, sometimes, towards the end of the clinic when you're running behind they come in, "Can I have some advice?" and you say "Yes, there is the advice, go away and do it." I do know it's not the best way of learning, but the pressure is there because otherwise you're finishing one clinic at quarter to one and the next one is at 1 o'clock.

10M6H

Collegiality was emphasised by twelve of the participants, usually positively, in terms of support, but also negatively. Difficulties with colleagues surfaced when they behaved unpredictably, or in a way that was counter to the ethos of the programme:

... what's happening to [students] outside, because, of course, all kinds of exposure within hidden curriculum... and everything else about daft things that happened to them on a day-to-day basis that they report back. Or them telling me how "it wasn't like this" in a previous group. Those things can make it then more difficult for me then to facilitate-within that group in that particular session. Because there are all kinds of other things about what the students are reporting to them from their sessions that are inconsistencies, or things that people have been saying to them in plenaries... And I suppose that goes back to staff not necessarily following a particular philosophical line, or not particularly thinking about why they're doing what they're doing, or the effect that they may be having on students.

01F1U

I know a lot of my colleagues, who are educational supervisors that do see it as a tick box exercise. If you don't want to do it, don't do it. Don't put yourself up as an educational supervisor job if you're not going to be prepared to put the time needed into it. Be a clinical supervisor that's fine... Don't agree to do the educational supervision if you're not prepared to do it properly. And that just does take time.

10M6H

When combined with the comments above, the different views the two communities of medical teachers hold, each about the other, it becomes apparent that the problem is one of a lack of shared vision or alignment in what the medical school is trying to achieve. This, in my view started when the curriculum was reformed in the early 1990's.

In 1993, the General Medical Council embarked on a process of change in what was expected of medical schools. Since the GMC hold the legal guardianship of the right to confer primary medical qualifications it was clear that all medical schools would attempt to comply with the contents of "Tomorrow's Doctors" (General Medical Council, 1993). This has been updated several times since, but from the first to the current edition (General Medical Council, 2009), there has been an emphasis on centrally organized medical programmes. Before the introduction of Tomorrow's Doctors, students rotated through the various disciplines and learned what the different departmental heads felt was necessary. They were assessed by and within those disciplines and quality and consistency was assured by the Dean (as chair of the Board of Faculty), supported and informed by the Professors of Medicine, Surgery and General Practice, and the external examiners.

The GMC's idea to create medical education units, to control the content, delivery and assessment of the curriculum, was proposed for very good educational reasons. It was part of a drive to a more consistent outcomes based approach, but it had the unintended consequence (at least as implemented in Liverpool) of appearing to disenfranchise some of the clinical disciplines. Our students moved up the league tables from being the least well-prepared medical graduates in the country (Cave et

al., 2007; McManus et al., 2008) to amongst the best (Bowhay & Watmough, 2009; Cave et al., 2007) and graduates have remained satisfied with their programme several years after graduation (Watmough et al., 2010). Despite that there was a vocal minority of local clinicians who deplored the change (Watmough, Taylor, & Garden, 2006; Watmough, Taylor, Garden, & Ryland, 2006). They have continued to express their dissatisfaction with the curriculum, and express their reservations to the students. The consequence has been a growing lack of cohesion between the medical school, the hospitals and the student body. This in turn has been reflected in poor National Student Survey scores, which have provided the impetus for another dramatic reform of the undergraduate curriculum.

Getting back to a stage where there was a common vision, clearly articulated by the leadership and shared by the whole educational community would solve many problems. That begs the question of how we get to that position.

One way forward

Although most of the participants had little to say when asked what they disliked about working with the University, after they had been talking for half an hour or so, they found it easy to identify the things that they would change.

Leadership

The single most frequent response related to leadership – although that cannot be taken as referring to the current leadership, since there have been significant changes in the management of the school. At the time of the initial interviews, the separation between the undergraduate medical school and the clinical environment was as great as it had been since the early 1990s. There were points of contact, and several individuals whose opinions were respected in both arenas, but there was no coherent leadership. In my view this has become particularly important in the light of changing the Faculty structure and creating strong research institutes with no responsibility for either teaching or clinical provision. The present norm referents do not favour educational activity. This is expressed in the quotes below, one from the University and one from the Hospital.

The first thing is academic leadership or support. That would be really helpful. Not necessarily from [identifier removed] just from someone as a good strong grounding in education theory and practice. That will be helpful.

12M8H

I think really we need a vision of where the medical school is going. We then need to look responsibilities of individuals within the senior management team about how they're going to take that forward. We need to get a little bit out of silos, there are some people working very much in silos who are not working well within the team. So all that I think needs to change... and that depends on the vision that [identifier removed] has for taking us forward.

02M1U

Under leadership, I would also place the drive for a greater sense of collegiality. Each of the following three (very senior) participants see themselves as spanning the University/Hospital continuum and have extensive experience in both environments. There are places where the sense of collegiality is strong:

... the colleagues I work with here in the three major places I work, have just been superb ...

02M1U

In others it seems not to be:

It's quite interesting that this is one of the few medical schools where there isn't a bond of allegiance between people

08M5H

This was expressed in a more positive way by one of the participants who wishes to repair what he sees as a divide.

... involve NHS staff not by beating with sticks ... but by involving them as friends and colleagues. It's with some interaction, and friendship, and make them feel part of the whole thing.

05M3U

The hardest element of leadership to deliver is to ensure the transparent use of resources. Within the University, staff funding is retained by the Research Institutes largely on historical grounds, rather than on the basis of the teaching they do. In most hospitals, the money that enters the Trusts to help defray the cost of educating medical (and now all other health professions) students (Service Increment For Teaching: SIFT) is simply part of the bottom line in the accounts, and is rarely identifiable as a separate budget stream. Consequently, for both constituencies,

teaching is seen as something that brings no direct reward. Restoring the link between funding and educational activity is a crucial step if we are to make progress.

Communication

This need for dialogue and mutual respect was highlighted by several participants, but most clearly in the request for a much greater clarity of expectations.

I think the frustrating one still seems to me that there is still some disconnect between the academic world, and certainly I'm only talking about medical education part of it, and some of the delivery end which is at the NHS. I still think that there is scope for a more robust dialogue between the two organisations as to how this is actually going to take place... you know, there is I think a genuine lack of clarity amongst the vast majority of clinicians that are engaged in the provision of the services.

08M5H

Clarity is partly to do with understanding the division of responsibilities between the clinical environment and the University (whether the educational provision comes from University academics or clinicians with honorary appointments), but also to do with the overview and scheduling placements

...we have been asked to do teaching at a time when we are caught up in clinical commitments and to lecture and doing both so being nice to know what academic blocks are doing and then they can fit round the academic blocks rather than struggle...

09F4U

The participant quoted above works in a surgical specialty, but another example that springs to mind was a very difficult time when a block of teaching was scheduled for the respiratory unit in Alder Hey Children's Hospital, coinciding with the seasonal rush of bronchiolitis. Even in retrospect it is difficult to see how that could have happened.

Clarity is not just about the mechanical expectations of curricular delivery; it is also about the leadership and vision of making policies and priorities clear.

To have clear policies that include the philosophical "why we're doing what we're doing" because that's what one of the frustrating bits about other people may be making things up as they go along or changing things or disregarding key bits of policy, because they don't revisit "but why are we doing what we're doing?"

01F1U

Recognition

The final element of the way forward as provided by the participants was recognition and reward. There are three elements to this, which are interrelated.

The first is to ensure the clear expectation of University clinical academics to teach, and to make it quite clear at the appointment process that any clinician working in a Trust with University Hospital status should also expect to be involved in teaching:

I would have thought, if you're appointing to [identifier removed] or [identifier removed], and you are the academic on the panel then you should be saying "Hang on we are a teaching hospital, let's get over it! We expect you to teach, we expect to give you feedback on your teaching and we expect you to give us something in return"

04M2U

It then becomes incumbent on the organisation to provide training and support for those involved in the educational endeavour

And the University could say that if they wanted to become a recognised teacher we can offer them the postgraduate certificate in education at cost or near cost. If you wish to be able to become a PBL teacher, or if you wish to have your teaching recognised... It's all there, it's all online, the syllabus is written.

04M2U

First of all we're not trained teachers, that's a huge issue I think. Some of us like teaching, I'd like to think some of us are good at teaching, but there are plenty who neither like it nor good at it and yet may be required to do it. I think the lack of training in teaching; the lack of qualifications for teaching is an issue.

07M4U

I think the follow-on from that you would then obviously invest in the development of these particular clinicians and help them to become more educational academic clinicians, perhaps leading in their various trusts perhaps you'd have a least one particular person who understands significant amount of time in a timetable for educational activities. And would link in with the University, who would actually oversee their development educationally.

12M8H

With a coherent approach to the importance of education, clarity of role and appropriate training, then it becomes possible to develop a career structure for those

clinicians who wish to include education as a major component of their portfolio career.

I think it would be quite creative for a new consultant starting at the University Hospital to say "Well, here is a pathway for you to become a medical educator during your career". And I think increasingly people are thinking as medical careers not as, you know, "I am a gastroenterologist for life." It's "Okay I am going to be spending this many years primarily doing this, and this many years primarily doing that". So I think you could be picking up young enthusiastic consultants who are interested in medical education, allowing them to progress to a higher level on a pathway of development, and having them as your educational leaders within the hospitals.

It would then be very creative, because it would be a clear role, which people like. It's a clear role in the organisation that people want, rather than doing a bit of it. Having some people who do a lot of it and having that leadership role, that would be good. And it would strengthen the communication and I think that's maybe a better way of thinking about it now, than it is thinking that everybody can do everything. Because increasingly to be doing medical education you need high qualifications and diplomas and postgrad certificates and... And so be it, and that's fine, but you need to create an environment where people want to do that can do it and see that as a pathway and where it takes them.

14M9H

The final element of recognition and reward harks back to the colleague who mourned the loss of examiners' dinners. I doubt that they will ever return, but there is a very real issue about what it means to have an honorary contract with the University for a hospital clinician. At present it is awarded to people to ensure that it is legitimate for them to assess students. We need to return to the days when it was awarded as a mark of respect and acknowledgement, and had a currency that was valued.

I think from a faculty point of view you've got to make people feel valued. That includes making NHS people at all levels really, not just consultants feel valued when they input into teaching and mentoring students. I don't think the faculty has been as good as it could have been doing that and in fact it used to be much better say 20 years ago, when honorary lecturer status was given out in recognition of good input, and was respected ... At several stages during the year NHS staff who were inputting into teaching work interacting as colleagues and equals and appreciated for their input. Very little of that happens now, it's a matter of man management really.

05M3U

If we could give them something to say look we're here to teach we do a lot of teaching. Your hit is to teach and do a lot of teaching - and we can't live without you, and you can't live without us. So can we make up and be friends. I don't think it will cost University very much, at all, to print off a few more of these cards and also just recognise them on a website as having satisfied the criteria of the University of Liverpool "the following are recognised as teachers of University of Liverpool in the School of clinical medicine", or something like that.

04M4U

I have investigated this. In the past objections were raised by the implication that people had to be part of the Research Assessment Exercise, that they would be automatically granted rights to parking, would need places made available for them in the University, and it would be difficult to administer. In practice, fortunately the world has moved on, and they no longer need to be put in for the Research Excellence Framework (although there are many who would be both eligible and valuable contributors). A parking permit is simply a license to hunt for a parking space and for almost all staff (particularly clinical staff who, like medical educators, usually work a 14 or 15 hour day) a library is something one accesses on-line. We already administer honorary contracts, and so this would have no impact. Furthermore it would help us meet the legal imperative imposed by the General Medical Council, (General Medical Council, 2012), to identify, and certify as worthy, all of those clinicians who teach our medical students by July 2015.

In summary then, the solution to the problem is in Figure 26. Dialogue, clarity of expectations and transparency of the resourcing model would remove barriers to teaching (tipping the balance to the right in favour of teaching). A career structure for those involved in teaching students and recognising their value would consolidate the shift to the right. Leadership, colleagues and variety could shift the balance either way, and the role of the leader/s must be to ensure that teaching is favoured.

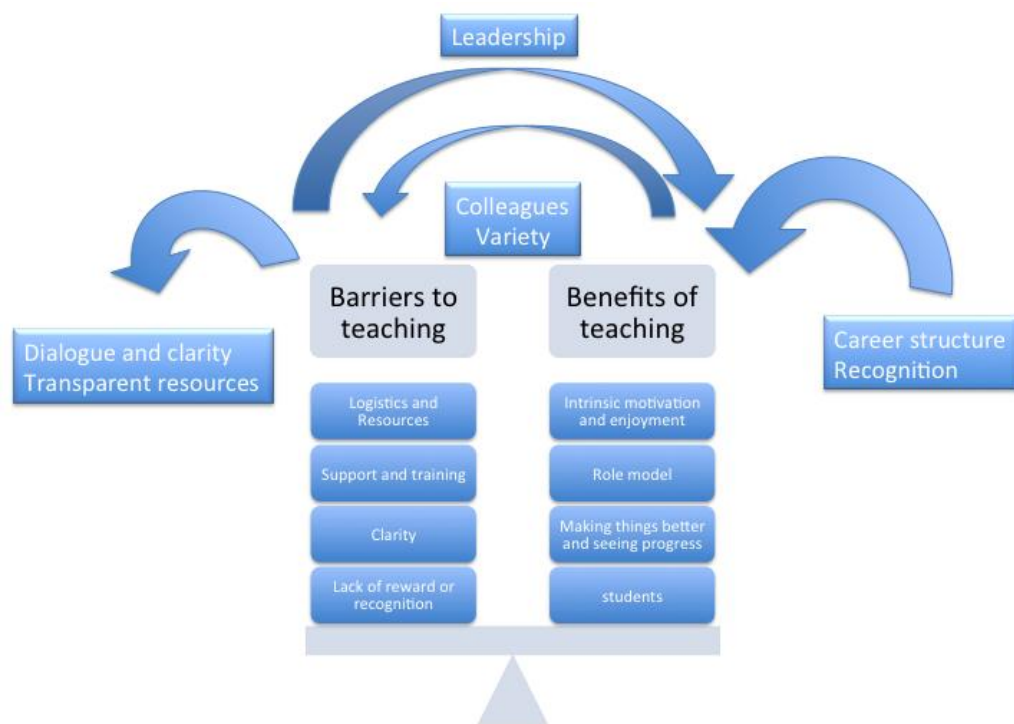


Figure 26 Potential solutions to encourage senior clinicians to engage with teaching undergraduate medical students.

What is being developed is a functional community of practice, where there is mutual engagement in a joint enterprise, based on a shared repertoire of experiences – in other words a model of community that is very close to Etienne Wenger’s “Community of practice” (Wenger, 1998).

The triad of engagement, enterprise and shared repertoire is central to any community (Wenger, 1998). At present in the School of Medicine, associated healthcare providers and the student body we have a situation where there are many individuals, each with their own story (Eakin, 1999) or figured world (Holland et al., 1998), which may, or may not relate to the external reality, and which may or may not overlap with the narratives of their colleagues. An essential start to rebuilding the community is the dialogue, and being clear about roles and expectations, and ensuring an understanding of the story, or vision for the future.

The next stage is to ensure a joint enterprise – and the current leadership of the School of Medicine is well underway in this project. The joint enterprise is the

inception, development and delivery of a new medical curriculum, which is to be launched in 2014.

Each of these stages is necessary, but not sufficient to form a vibrant and self-sustaining community. We actually need people to engage with it, and that requires enthusiasm and empowerment.

Agency

This way forward should address the deeper problem.

For a number of reasons, the medical school, in the widest sense, including University staff, clinicians associated with the University and the students themselves had become a morphostatic community in Archer's terms. The medical community and the University are both hierarchical institutions. It is easy to see how people without power, either because they are not in the power structures, or because they choose to be passive or abrogate responsibility, allow the status quo to continue. Given the dissociated structures and the lack of dialogue between the University and the medical community, caused partly by the changes brought about to meet the General Medical Council's imperatives (General Medical Council, 2009) and partly by the change in management of the Medical School, it is clear that there is no likelihood of structural elaboration without a dramatic cultural elaboration. Promotion of the morphogenic cycle, which is needed, can most easily be brought about by returning agency to the meta-reflexives that comprise the majority of our clinical and academic colleagues.

There are inspiring examples of what is possible. If we were to return to Figure 6 from the literature review (reproduced below at Figure 27) we can take an example from one of the participants to show how it works.



Figure 27 Internal conversation and pursuit of the good life (after Archer 2007, p.89)

Well, I have a diary, which has so many hours in a day... And I suppose in some ways there are some elements that are always in that diary and some elements that “flex”. And I guess it's about weighing up the importance of attending or being part, of attending meetings or being part of various initiatives and weighing up the balance of that and what I need to do what I can delegate to other people to do around me that I don't need to do. I suppose I prioritise things that develop the clinical service, learning and teaching, and research and development. So I keep an eye on those three domains and see what the opportunities are, and see whether we can convert them into realities.

14M9H

This draws out several important points. To be fair to most of my colleagues, this participant is one of the most driven and effective people that I know. But he is clear about the reasons for his success.

The first thing to highlight is that, in common with all of the highest achieving participants, he compartmentalises his time. Because of his high social capital and his understanding of his field of play (Bourdieu, 1977, chapter 2.; Maton, 2008, p. 51) he has sufficient agency to be able to mediate between the structural and cultural domains (Archer, 2012, p. 33) . He recognises (as a meta-reflexive (Archer, 2007, chapter 6.)) that his ability to focus on one task at a time is crucial to the success he has had in several different fields of endeavour. Seniority helps him in this, of course, but allowing more junior colleagues the agency to compartmentalise their time would help increase their ability to complete and enjoy tasks.

The second is to enter into dialogue with colleagues to help them articulate the things that matter to them, and try and reach some alignment between their aspirations and the institutions’ required outcomes. This is a matter of beginning to understand the norms, attitudes and perceived behavioural control that shape his

colleagues intentions (Fishbein & Ajzen, 2010). This understanding, together with his capital enables him to help his colleagues prioritise the things that matter to them, define their concerns and develop their projects.

The third and final element relates to helping people establishing satisfying and sustainable practices. This is where the structural and cultural domains become mutually reinvigorating (see Figure 29 below). The skill here is to ensure that the structural and cultural domains are mutually reinvigorating (producing morphogenesis), rather than reinforcing (producing morphostasis).

Each of these elements demands leadership, mutual respect, and continued support and training. The result would be restoring agency to those with the knowledge, skills and attitudes to make a difference, which would in turn help to generate cultural elaboration and ultimately structural elaboration. If the cultural and structural elaboration are aligned, the new emergent structure will promote certain kinds of reflexivity (see Figure 28).

Although the primary focus for any change needs to be the individual, it must be remembered that the community itself has a role in moderating, or mediating, change (Donati, 2010). The dialogue between the individual and the other members of their community is where agency is effected.

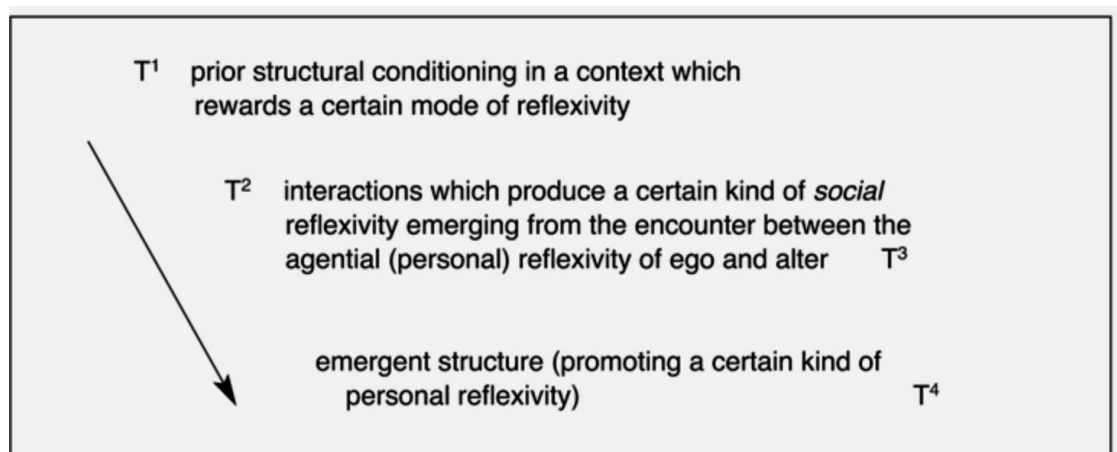


Figure 28 Donati's view of reflexivity in society (Donati 2010, p.204).

The key point made by Donati is that, just as individuals demonstrate reflexivity, so do social structures (see Figure 24). Social structures reward different types of reflexivity in different ways. There is a time and a place for autonomous reflexives and a time and place for meta-reflexivity. The next role of the leadership within the medical school will be to find ways of rewarding the desired meta-reflexivity.

All of these steps are needed if the School of Medicine is to become a self-sustaining community of practice fit for the future.

Conclusions

There are three outcomes to this study. One is a deeper understanding of the dynamics that govern the decision-making processes of senior clinical colleagues concerning their commitment to teaching undergraduate medical students. The second outcome is a series of recommendations, which could improve the experience of teaching undergraduate medical students for clinician and student alike. The final outcome is an understanding of those factors that will promote a self-sustaining community of medical practice. Although the issues have been investigated in the very specific context of the School of Medicine, in the University of Liverpool, they are applicable wherever there is a tension between professional and educational demands.

The reflexive imperative

Archer shows us that social systems are open, but can be either morphostatic, and preserve the *status quo*, or morphogenic and allow, indeed encourage, change and development. For development to occur cultural elaboration and structural elaboration need to reinforce each other. A series of interactions are the pre-requisite for morphogenesis.

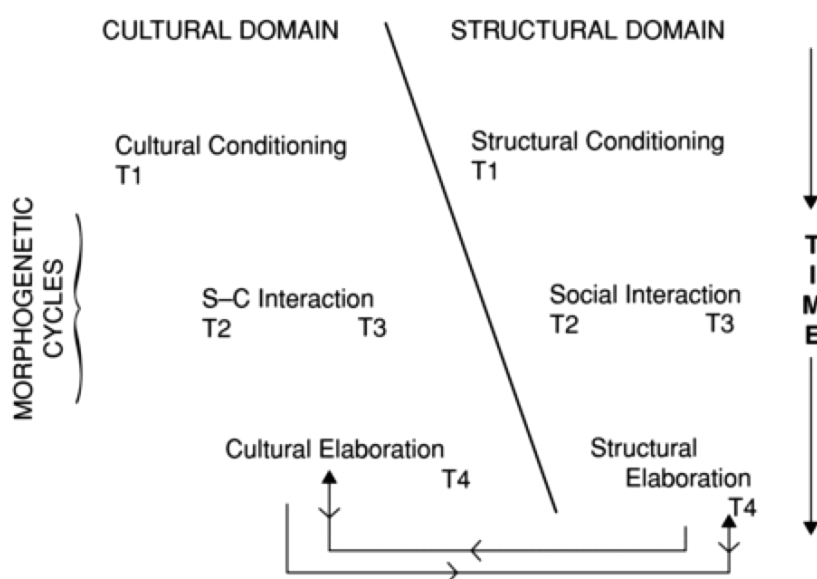


Figure 29 After Archer 2012, p.33) Morphogenetic cycles

I shall endeavour to apply Archer's theories to the open system that is the object of my study – the teaching of undergraduate medical students and focus first on the structure (Archer, 1995, pp. 81-82). The medical community is very sensitive to hierarchy and is intrinsically conservative. The responsibility for ensuring that undergraduate medical students are taught lay with the medical school, but only a small proportion of people involved in teaching undergraduate medicals students are directly employed by the medical school. Although the local educational providers (LEPs: the Hospital and Primary Care Trusts) receive money to compensate them for the teaching they do from the LETBs (Local Education Training Boards), there is no representation of the School of Medicine on the LETB, and the funding is currently disbursed without ensuring that is dedicated to the training of students. The result is that there is minimal accountability for the way in which the money is spent, and there is, at best, a tenuous link between the needs of the School of Medicine and the teaching delivered. The structural conditioning part of Archer's model does not, therefore, seem likely to produce the desired outcome for the School of Medicine. The former close links between the hospital trusts and the School of Medicine have been lost through restructuring of the medical school, and so the social interaction (debate within the LETBs and the LEPs), which could lead to structural elaboration (greater focus on the use of funding for teaching undergraduate medical students), has been all but lost. Any change must, of necessity, come from the cultural domain (Archer, 2012, p. 33).

The first step in the morphogenetic cycle in the cultural domain is the socio-cultural conditioning between corporate agents and primary agents (Archer, 1995, pp. 263-265). This is where the key problem lies. In order to engage with the corporate agents, individuals need to feel that they have primary agency. Although there were some participants in this study who were demonstrably meta-reflexives with the necessary agency to promote change, several participants in this study felt that they had no agency to change or challenge the status quo. In their internal conversations (Archer, 2007) they felt they were meta reflexives – able to consider the present in the light of past experiences and develop a strategy for moving forward. In the actual workplace they acted, at best, as communicative reflexives (seeking affirmation and

permission from others before acting). At worst they were passive reflexives (not thinking things through at all), or abrogative reflexives – who left the problem to others to deal with. In order for things to change, there needs to be a group interaction between corporate agents and personal agents, which will then lead to cultural elaboration. Cultural elaboration (and the social interaction mentioned in the structural domain) will lead to mutually reinforcing structural elaboration.

The remaining question, then, is how to encourage colleagues to seize, or unleash their primary agency.

This is the main practical outcome of this study, dependent upon developing the model of leadership within the School of Medicine, and putting into place some basic structures.

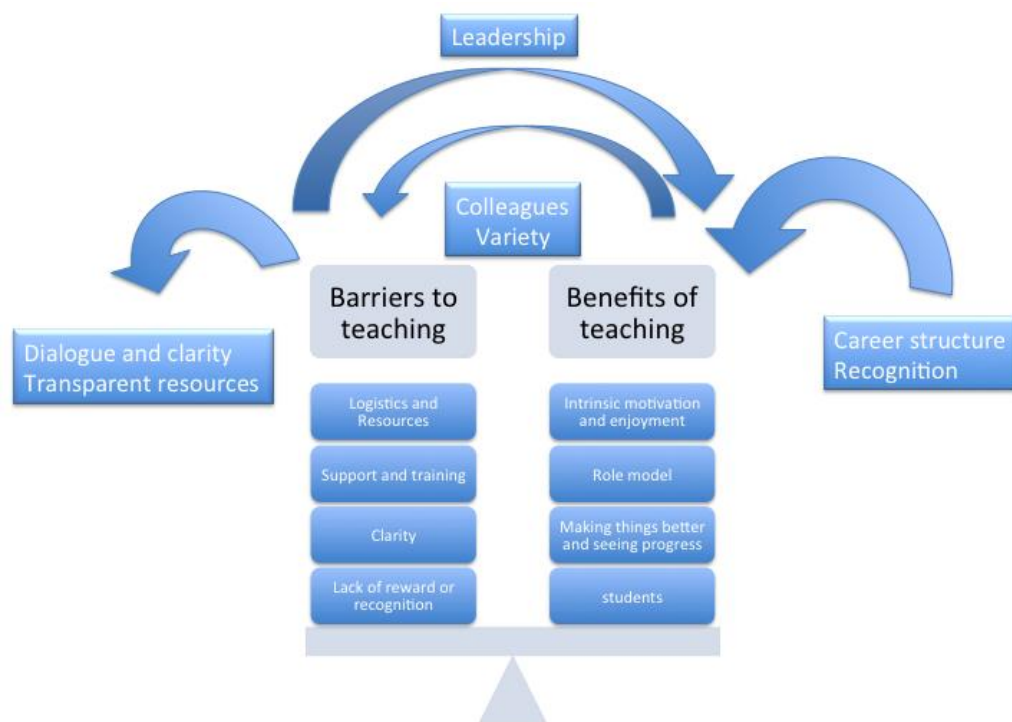


Figure 30 Potential solutions to encourage senior clinicians to engage with teaching undergraduate medical students.

Recommendations

Recognition

At the closest personal level, the greatest barrier or disincentive to teaching undergraduate medical students was the level of recognition and reward that was associated with it. Participants called for a clear career structure associated with being a clinical academic, irrespective of whether one had a substantive University or NHS contract. The teaching expectations should be made clear from the appointment stage (agreed in advance, of course, by those commissioning the educational provision, and those commissioning the clinical service provision). Thereafter the clinical academic should have their educational provision measured, monitored and assessed, and receive the necessary training to enable them to comply with GMC registration and revalidation requirements (General Medical Council, 2012). They should also have a career structure before them, so that they could work towards higher educational qualification, and be given appropriate experience, involvement and oversight to allow them to seek promotion on the basis of their educational acumen.

To facilitate this, the School of Medicine needs to have a structured postgraduate programme in Medical Education that would provide a minimum certification for the Higher Education Academy and Academy of Medical Educators (which will comply with GMC basic standards). The University of Liverpool already approves the modules that are needed as continuing professional development modules. The programme as a whole, leading through to a Masters in Medical Education, is being put through the committee structure of the University over summer 2014. Those with the full Masters programme would be trained in leadership, in policy and in curriculum development, to enable them to fill roles either within the University structures or the LEP structures. Crucially the training and experience would give confidence to exert their agency, and the discussions between participants, past and present, on the programme would go a long way to promoting the socio-cultural conditioning and social interaction required to drive the morphogenetic cycles.

The final element of this section is to ensure recognition for being part of the educational endeavour – which, for those without substantive University contracts would be the awarding of a meaningful status (renewable or removable) as honorary lecturer/senior lecturer/reader or even Professor of the University, with full access to the Library and alignment and regular, actual contact with one or more schools/departments or institutes within the University. This simply needs a recommendation from the Board of Studies to the Senior Management Team of the Institute for Learning and Teaching. The statutes and ordinances of the University already permit such honorary contracts, and the librarian has indicated no objections.

Communication

In reality, this recommendation means ensuring the social interaction and sociocultural interaction proscribed by Archer's understanding of the morphogenetic cycle (Archer, 2012, p. 33). It requires a dialogue between those who are delivering the educational objectives, and those who are setting the educational objectives. This is already underway under the auspices of the current curriculum review and development activities. But the School needs a communication policy that ensures and reinforces it. Ensuring a mutual understanding of context is currently proving difficult, and is of necessity an iterative process. The School has to be very careful that the context of the clinical sites is taken into account, and the invariably means negotiation about what is desirable and what is possible. The curriculum is being developed into eight themes, and it is not always immediately clear how these individual themes map into the different hospital disciplines. A series of meetings is underway through the summer of 2014 to try and ensure a greater clarity of what is expected by each side. In 2014/2015 the new curriculum is rolling out for years one and three of the medical programme, and years two, four and five will follow in 2015/2016. This is a demanding schedule of work, but continued dialogue will make it possible. Rapid change, in fact, is forcing both cultural and structural elaboration – but without ensuring agency it will just result in a new morphostatic system.

Leadership

The new leadership for the undergraduate school is in place, and I am detached from it as I am now responsible for the delivery of the postgraduate programme in medical education. The drive for change and implementation of the new curriculum mean that there is an opportunity for continued restatement of the overall vision, and this is to my mind the main reason for curriculum review. I might deplore the direction that it has taken at a personal (Bate, Hommes, Duvivier, & Taylor, 2013) and even educational level (Taylor & Hamdy, 2013) level, but I am completely behind the need for change and development (Cocksedge & Taylor, 2013; Taylor, 2008). My recommendations are that the leadership continues the drive towards transparent allocation of resource, stating and restating the overall vision, and thereby facilitating morphogenesis in the structural domain. By pursuing this through dialogue with each of the themes, and distributing the responsibilities for different elements of the new programme throughout the whole medical community, there are further opportunities for collegiality, which must be seized and emphasised.

The community of practice

Finally we must consider ways in which the community of practice can be (re-) built and develop into a self-sustaining community. This requires clinical academics (whether contractually University or NHS), non-clinical academics (such as myself) and, crucially, students and junior doctors to feel that they belong to the community of practice. By encouraging the reality of legitimate peripheral participation (Lave & Wenger, 1991), with close and regular contact between senior clinical academics and students, we can move back towards the ideal where students and academics feel they belong to the same community. There are three modes of belonging – each with separate elements that relate back to Holland's view of figured worlds (Holland et al., 1998), or the stories that we tell ourselves that make sense of the world in which we find ourselves.

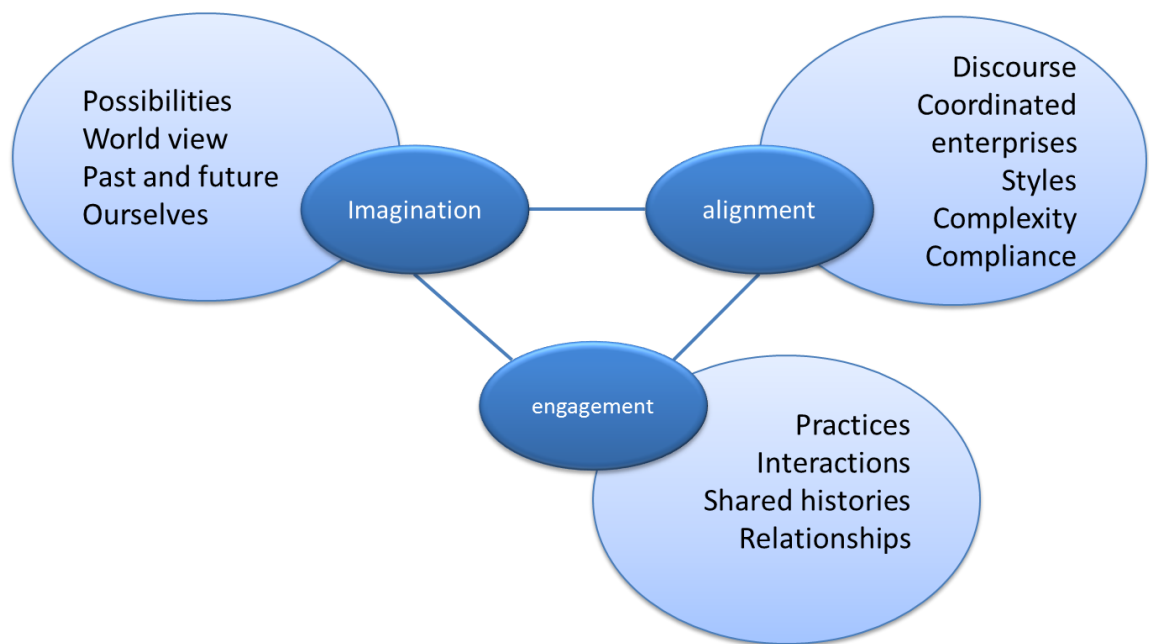


Figure 31 Modes of belonging, after Wenger 1988 p.174

The three elements are our imagination, our alignment and our engagement. All three of these are necessary if we are to have a community of practice that is self-sustaining.

Imagination is the most internal of these and it requires that we have a world-view that regards the enterprise as valuable and worthwhile. We must be able to see ourselves in relation to the community, wish to be part of it and we need to be able to see it as something which can be defined with relation to the past and the future – so, personally, I want to be part of developing the Medical School in the future, accepting its past, wanting to make it what it could/should be.

Engagement is about wanting to be involved in the negotiating what the Medical School would mean, in the largest sense. So, for me, the medical school would be a community of colleagues, from many different backgrounds, with many different skills and interests, all working together to develop the local health economy. It would include staff, students and in some way I can not envisage or articulate yet, patients.

Alignment is about the way in which one works to ensure the outcome of the mutual goal. In my case this would be principally through the way that I will develop the postgraduate programme in medical education to ensure a collegial understanding of what it means to be part of a medical school, and to provide mutual support to all who want to make the Medical School a reality.

This is, then, the final element of the story if we are going to re-create the medical school.

To re-create the School of Medicine we need to have leadership that can articulate a vision, which fires the imagination of the members of the school, current, potential and including the students, triggering possibilities. Through dialogue, training and sharing of practice we produce alignment of goals, energy and activity, and through giving people a sense of worth, and agency we produce the engagement necessary to bring it all to fruition.

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